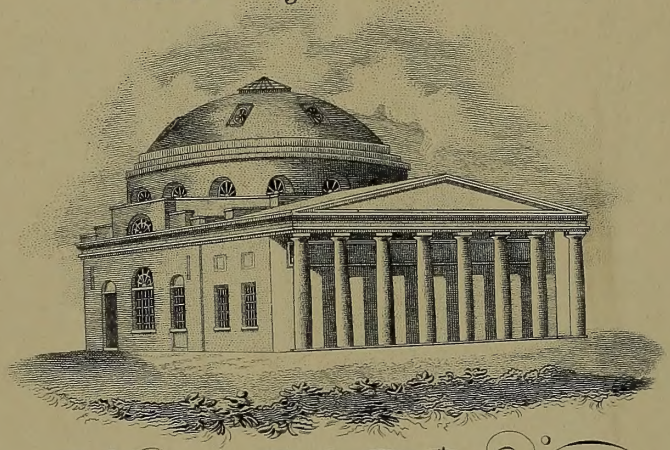
Returned 2 MAR 22 1941

LIBRARY
OF THE
School of Medicine



University of Maryland

Md.
Coll.

University of Maryland Thesis

Table Showing of Medicine and Doctor of Philosophy Dissertations with Corrected Tables of Contents

These manuscripts described as either an (Inaugural) Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Philosophy during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in spelling, numbers, titles, and/or pages. To address these issues, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were: Richard J. Wolfe, Historical Librarian/Preservation Officer; Maria Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Steele, Alex Schoor and Megan Wolff, Services Division.

These dissertations were digitized in 2011 - 2012 and are available at the UM Digital Archive (archive.lib.umaryland.edu) and the Internet Archive (www.archive.org).

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

These dissertations were digitized in 2011-2012 and are available at the UM Digital Archive (archive.hshsl.umaryland.edu) and the Internet Archive (www.archive.org).

(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1840, 1841, 1842

Author	Title	Year	Notes
Snowden, De Wilton	Tetanus	1840	Incomplete
Miltenberger, G. W.	Congestive Fever of 1839	1840	
Worthington, Thomas C.	Milk	1840	
Smith, Gideon B.	Cholera Infantum	1840	
Turner, John H.	Albuminuria and Bright's Disease of the Kidneys	1840	
Reynolds, John	Pleuritis	1840	
Donaldson, Miles L.	Smallpox	1840	
Moler, John Engle	Scarlatina	1840	
Clendinen, Alexander	Diseases of the Frontal Sinuses	1840	
Moore, William B.	Haemorrhoide	1840	
Weston, Richard E.	Dysentery	1840	
Cabell, J. Grattan	Dysentery	1840	
Hall, Benjamin R.	Delirium Tremens	1841	
Ridgely, John	Hydrops	1841	
Henry, Thomas Y.	Luxation	1841	
Davidson, Sam A.	Gastritis	1841	
Gantt, Thomas C.	Dysentery	1841	
Edelen, Philip R.	Inflammation	1841	

HSHSL 2011 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	Year	Notes
Pendleton, Eisha B.	Ulcers	1841	
Roberts, William H.	Cynanche Trachealis	1841	
Maris, Edward A.	Pes Equinus	1841	
Garner, John E.	Syphilis	1842	
Worthington, Hattersly	Neuralgia	1841	Bound out of order[1]
Hall, Edward M.	Iodine	1841	
Reed, James A.	Secale Cornutum	1841	
Jordan, Mills M.	Erysipelas	1841	
Stevenson, James S.	Bloodletting	1841	
Houck, Jacob W.	Opium	1841	
Durkin, William C.	Fractures	1841	
Butler, Vincent M.	Syphilis	1841	
Hall, Julius	Pneumonia	1841	

[1] Pages 13 and 14 are at the end of the thesis, after p. 29.

HSHSL 2011 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1840, 1841, 1842

Snowden, De Wilton	Tetanus	16p. 1840 (incomplete)
Miltenberger, G. W.	Congestive Fever of 1839	19p. 1840
Worthington, Thomas C.	Milk	12p. 1840
Smith, Gideon B.	Cholera Infantum	20p. 1840
Turner, John H.	Albuminuria and Bright's Disease of the Kidneys	28p. 1840
Reynolds, John	Pleuritis Acute and Chronic	23p. 1840
Donaldson, Miles L.	Smallpox	11p. 1840
Moler, John Engle	Scarlatina	20p. 1840
Clendinen, Alexander	Diseases of the Frontal Sinuses	21p. 1840
Moore, ~~Gulielmo~~ William B.	Haemorrhoide	11p. 1840 (Reg)
Weston, Richard E.	Dysentery	14p. 1840
Cabell, J. Grattan	Dysentery	21p. 1840
Hall, Benjamin R.	Delirium Tremens	12p. 1841
Ridgely, John	Hydrops	25p. 1841
Henry, Thomas Y.	Luxation	13p. 1841
Davidson, Sam A.	Gastritis	11p. 1841
Gantt, Thomas C.	Dysentery	15p. 1841
Edelen, Philip R.	Inflammation	20p. 1841
Pendleton, Elisha B.	Ulcers	15p. 1841
Roberts, ~~Wm.~~ William H.	Cynanche Trachealis	13p. 1841
Myris, Edward A.	Pes Equinus	20p. 1841 (Cordell + Register)

22

27
2.45

Garner, John E.	Syphilis	22p.	1842
Worthington, Hattersly	Neuralgia	29p.	1841 (1)
Hall, Edward M.	Iodine	13p.	1841
Reed, James A.	Secale Cornutum	14p.	1841
Jordan, Mills M.	Erysipelas	12p.	1841
Stevenson, James S.	Bloodletting	14p.	1841
Houck, Jacob W.	Opium	25p.	1841
Durkin, Wm. C.	Fractures	22p.	1941
Butler, Vincent M.	Syphilis	13p.	1841
Hall, Julius	Pneumonia	16p.	1841

22

(1) Bound out of order. Pages 13 and 14 are at the end of the thesis, after p. 29.

21
2.45

Garner, John E.	Syphilis	22p.	1842
Worthington, Hattersly	Neuralgia	29p.	1841 (1)
Hall, Edward M.	Iodine	13p.	1841
Reed, James A.	Secale Cornutum	14p.	1841
Jordan, Mills M.	Erysipelas	12p.	1841
Stevenson, James S.	Bloodletting	14p.	1841
Houck, Jacob W.	Opium	25p.	1841
Durkin, Wm. C.	Fractures	22p.	1941
Butler, Vincent M.	Syphilis	13p.	1841
Hall, Julius	Pneumonia	16p.	1841

22

(1) Bound out of order. Pages 13 and 14 are at the end of the thesis, after p. 29.

An Inaugural Dissertation
on
Tetanus
Submitted
to the examination
of
the Provost, Regents & Faculty of Physic
of the University of Maryland
for the degree of Doctor of Medicine
by

De Witton Snowden
Prince Georges County
Maryland

February 1840.

UNIVERSITY OF MARYLAND
LIBRARY
Founded 1813
SCHOOL OF MEDICINE

1M6
18878

Tetanus.

Tetanus consists in violent tonic spasms of the voluntary muscles, with the powers of sensation and thought unimpaired. There exists, therefore a radical difference between this disease and the affections which are properly called convulsive, for in the latter forms of spasmodic diseases more or less disorder of the sensorial and intellectual powers almost always exist, and the spasmodic affection is characterized by sudden contractions and relaxations of the voluntary muscles alternating in quick succession, — giving rise to violent convulsive motions of the body and extremities.

Tetanus is divided, by nosologists into different varieties, according to the particular set of muscles chiefly affected. When the affection is confined to the muscles of the jaw and throat it is called trismus or locked-jaw. Sometimes the extensor muscles of the trunk and inferior extremities are principally implicated, causing a rigid recurvation of the body so as to bend it violently backwards in to the form of an arch: — and this variety is denominated opisthotonos. The term emprosthotonos is applied to the disease when the body is curved forwards; and pleurosthotonos designates its lateral incurvation. These distinctions possess no practical importance the disease being essentially the same in all of them.

There is another distinction, however founded upon etiological circumstances, which is of more consequence, both in a prognostic and therapeutic point of view, to bear in mind:- namely the division of the disease into idiopathic and traumatic tetanus. The former term is applied to those cases which arise from the operation of general causes; such as cold, or narcotic poisons; the latter designates those instances which occur in consequence of some mechanical injury; such as wounds, bruises, burns, and other organic lesions. Tetanus almost always approaches gradually, so that several days often elapse between the first manifestations of its invasion, and its state of complete development.

At first, a slight stiffness is perceived in the back part of the neck which after a short time becomes considerably increased, and at length renders the motion of the head both difficult and painful. With the rigidity of the head there is likewise an uneasy sensation at the root of the tongue, together with some difficulty in swallowing, and a great tightness is perceived about the chest, with a pain at the extremity of the sternum shooting into the back, A stiffness also takes place in the jaws, which soon increases to such a height, that the teeth becomes so closely set together, as not to admit of the

smallest opening. This is what is termed the locked-jaw or trismus. In some cases, the spasmodic affection extends no further; in others the spasms at this stage of the disease returning with great frequency, become likewise more general, and now affect not only the muscles of the neck and jaw; but likewise those of the whole spine; so as to bend the trunk of the body very forcibly backwards, and this is what is named opisthotonos. Where the body is bent forwards the disease is called emprosthotonos. During the whole course of the disorder, the abdominal muscles are violently affected with spasm, so that the belly is strongly retracted, and feels very hard, most obstinate costiveness prevails, and both the flexor and extensor muscles of the lower extremities are commonly affected at the same time so as to keep the limbs rigidly extended. The flexors of the head and trunk become at length so strongly affected as to ballance the action of the extensors, and to keep the head and trunk so rigidly extended and straight, as to render it incapable of being moved in any direction. The arms, which were little affected before, are now likewise rigidly extended, the tongue also becomes affected with spasms and being convulsively darted out, is often much injured by the teeth at that moment snapping together,

It is to this state of the disease that the term tetanus has been strictly applied. The disorder continuing to advance, every organ of voluntary motion becomes affected, the eyes are rigid and immoveable the countenance is hideously distorted, and expresses great distress: the strength of the patient is exhausted, and the pulse becomes irregular; and one universal spasm puts a period to the most miserable state of existence.

The usual mode of termination in fatal cases is by apoplexy. In some instances, all the muscles become completely relaxed a short time before death takes place. The patient seems to have emerged from his terrible malady. Every part of the body is in the ordinary state of relaxation.

Suddenly, however, extreme prostration of strength ensues he becomes insensible and comatose: the countenance assumes a cadaverous expression, and death speedily follows.

The mind is very rarely disordered in tetanus. The appetite and the digestive functions, also are generally but little affected. The duration of tetanus is various, although it commonly terminates before the fifth or sixth day, and not unfrequently as early as the third day. In some instances, however, it continues much longer and occasionally it assumes a chronic character. When the disease is about terminating favourably, the remissions

become more complete and protracted, during which, the patients frequently experience a sense of formication in the extremities. It always passes off very gradually, and in general the pectoral and abdominal muscles are the last to regain their healthy condition. an increased irritability of the nervous system and general weakness continue several months after recovering from an attack of tetanus. According to the statements of some writers tetanus sometimes passes into other forms of disease. Stark states that it has been known to terminate in remitting and intermitting fevers.
Instances have also been recorded, in which paralytic affections remained after the subsidence of the disease.

Causes. Tetanus arises more frequently in warm climates than in cold ones, and it is very apt to occur when much rain or moisture quickly succeeds excessively dry and sultry weather. Tetanus attacks persons of all ages, sexes, temperaments, and complexions, but the male sex more frequently than the female, and those of a robust and vigorous constitution than those of a weak habit. An idea is entertained by many, Dr Thomas observes, that negroes are more predisposed to attacks of tetanus than white people; they certainly are more frequently

affected with it, but this circumstance does not arise from any constitutional predisposition, but from their being more exposed to punctures and wounds in the feet, by nails, splinters of wood, pieces of broken glass &c from usually going barefooted.

Tetanic affections are occasioned either by exposure to cold, or by some irritation of the nerves, in consequence of local injury by puncture, incision, or laceration. Lacerated wounds of tendinous parts prove, in warm climates a never failing source of these complaints.

In cold climates, as well as warm, the locked jaw frequently arises in consequence of the amputation of a limb. Attacks of tetanus are seldom attended with any fever, but always with violent pain, and the spasms do not continue for a constancy, but the muscles admit of some remission in their contraction, which is frequently renewed, especially if the patient makes the least attempt to speak, drink, or alter his position.

When tetanic affections arise in consequence of a wound, puncture, or laceration, in warm climates, Dr Thomas observes they are almost sure to prove fatal. The locked jaw in consequence of an amputation, likewise proves fatal.

When these affections are produced by an exposure to cold, they may in most cases be removed by a timely use of proper remedies although a considerable space will probably elapse before the patient will be able to recover his former strength.

Tetanus is particularly apt to follow wounds in which a nerve is partly divided or lacerated without being completely divided. The insertion of an artificial tooth, including a nerve in a ligature passed round an artery; the extirpation of tumors compound and comminuted fractures; gun-shot wounds: cutting corns on the feet too closely; the sudden access or introduction of cold air into wounds, particularly of gun-shot wounds when the sloughs are about being thrown off. Traumatic tetanus frequently does not come on until the wound which gives rise to it has cicatrized.

Tetanus may also be produced by drinking cold water, while the body is in a state of free perspiration from fatiguing exercise in warm weather. Tetanic spasms sometimes occur in the latter stage of severe forms of fever.

Pathology; From seeing those muscles particularly affected which derive their nerves from the spinal marrow whilst those which are supplied with ganglionic nerves are, in a great measure, exempt from spasm; as well as

from the undisturbed state of the sensorial and intellectual functions, tetanus was, at an early period of our science, referred to the spinal marrow as its primary and essential location. This pathology of tetanus is moreover supported by the fact, that, tetanic spasms may be artificially produced in animals by thrusting a slender wire along the spinal canal, so as to irritate the marrow without materially compressing it. This experiment has been frequently performed by Dr Walther of Berlin, with the most striking results. The fact therefore that strong marks of inflamation in the spinal prolongation of the encephalon are very common post mortem phenomena in tetanus appears to be sufficiently established. It may be doubted, nevertheless wether these morbid conditions of the spinal cord be the proximate and essential cause of the tetanic spasms, or only secondary and one of the ultimate consequences of the disease. If on the one hand this view of the nature of the disease be favored by the occasional successful employment of topical bleeding, blistering, irritating and cauterizing applications along the course of the spine; it is on the other hand as strongly discountenanced by the equally frequent beneficial effects of alcoholic liquors, and other powerful internal stimulants.

hands, proved most successful. These facts may be irreconcilable, according to our imperfect views of the pathology of this affection, but they are notwithstanding facts, and there is therefore something in the nature of the disease which, in spite of theory, renders both exciting and depletory measures, at times, decidedly beneficial.

Tetanus is manifestly an irritative disease. In the traumatic variety, it would seem to be the result of a peculiar irritation passing from the extremities of the wounded nerves to the origin, giving rise to morbid action in that part of the nervous center which more immediately presides over the powers of the voluntary muscles. Hence opium or whatever is capable either of blunting the irritability, or causing a stronger counter excitement in the nervous system, may overcome morbid excitement and ultimately subdue the disease.

As however, all violent local irritation tends to produce congestion, and finally more or less inflammation in the part this may at times be an early consequence. Here, general and local depletion will be proper and, if promptly and efficiently practised, in conjunction with other suitable

remedies, before effusion and disorganization have taken place, may prove successful. May, even direct depletion, and the liberal use of opium, are not incompatible, for while we diminish the momentum of the circulation on the one hand, we lessen, on the other, the morbid irritation upon which the disease and the inflammation depend.

No small number of cases may be cited in which copious blood-letting was decidedly beneficial. Cases of traumatic tetanus have been successfully treated by copious blood-letting, opium mercury, and the warm bath.

Local bleeding by leeches or cups along the track of the spine, is decidedly indicated in this affection.

Purgatives, also are important auxiliaries in the treatment of this affection, and we are advised by some to rely on them as a principal curative means, which I think will strike all as the high of folly. In all instances, perhaps, it will be proper to exhibit active cathartics, not only with the view of removing the ordinary sources of intestinal irritation, but also as revulsive and depletory measures. Calomel followed by oil may be given in the commencement of the disease, and repeated according to the circumstances of the case.

There is no remedy whose good effect in this disease is so frequently

mentioned as opium, its good effects are, however, not to be produced from as small dose, the quantity of opium which has been advantageously given in some instances is indeed enormous. It should be continued until it either produces sleep or stertorous breathing. The bowels should always be well evacuated by active cathartics and injection, previous to resorting to opium.
Mercury also, has been a good deal employed, and according to respectable authorities, with decided advantage in tetanus. by placing the patient in a warm room, and then rubbing in large quantities of mercurial ointment over the limbs and body until ptyalism was raised, opium should always be used with the mercury. Larrey however asserts, that mercurial frictions during the French campaigns in Egypt, almost uniformly, did harm. Dr Rush cured a case in the Pennsylvania Hospital by copious salivation, assisted by bark and wine.
Wine and other alcoholic liquors, though apparently contra indicated, have been much used, and successfully too, in tetanus, in conjunction with bark, ~~mercury~~, and irritating applications to the wound. Various other stimulants have been employed in tetanus. The spirits of turpentine, in particular, has ~~of~~ late years attracted considerable

attention as a remedy for this disease. Tobacco, is an old remedy for this disease, and has lately gained a very great reputation to be used either as an injection or fomentation, but I think I would rather employ an injection of Emetic tartar in a sufficient quantity, to produce artificial Cholera Morbus. It will of course produce a relaxation of all muscular power and employed with blood letting and opium I think would be an excellent remedy.

The prussic acid seems to have gained some reputation in this disease also the tincture of cantharidies, both must be given in large doses, The application of blisters along the spine is an old and very good remedy, actual cautery is sometimes employed, but I think it might as well be let alone for when it is employed there is no hope.

The application of moxas, along the spine, might no doubt be used with advantage. From all that has been said concerning the treatment of tetanus, it appears manifest, therefore that copious bleeding, leeching, and cupping, along the spinal region, mercury, large doses of opium, tobacco enemata, active purgatives the free use of wine, and caustic applications over the cervical and dorsal vertebra, constitute the most ~~important~~ curative means in this affection.

It is highly probable notwithstanding, that there exists, as an essential link in the chain of causation, strong irritation in the spinal marrow and its membranes which in most instances, gives rise to vascular turgescence, and in the progress of the malady, to inflammation and its consequences are I presume, not essential to the production of the disease, but a consequence only of the spinal irritation upon which the spasmodic affection depends;

On dissections of this disease, slight effusions within the cranium have been observed in a few instances; but in by far the greater number, nothing has been discovered, either in the brain, or any other organ.

Prognosis. The prognosis in this disease is always so highly unfavourable. Traumatic tetanus is particularly fatal in its tendency; cases that depend on general causes are usually much more under the controle of medicine. That variety of tetanus which occurs in new-born infants terminates, almost universally in death.

Parry asserts, that if the pulse becomes very frequent on the first day of the disease, if it rises above one hundred and twenty beats in a minute, the case may be regarded as inevitably mortal. When on the contrary, it does not get beyond one

hundred or one hundred and ten beats by the fourth or fifth day reasonable hopes may be entertained of recovery.
When the disease comes on gradually, and the muscles of the jaws are alone affected during the first three or four days: when the abdomen is not preternaturally hard, and the bowels obstinately costive, when the skin is moist and moderately warm; and above all, when the patient enjoys sleep, we may entertain strong hopes of an eventual recovery.
An increased flow of saliva, where mercury has not been used, is always to be regarded as favourable; and the less the general expression of the countenance is changed, the better.
On the other hand where the attack is violent and sudden; when the muscles of the neck, back, and abdomen, are rigidly contracted; when the patient complains of a shooting pain from the sternum towards the spine; when the belly feels hard, and the least pressure thereon produces spasmodic twitchings or contractions of the muscles of the neck, jaws, &c, or when the same effect is brought about by the presentation of any substance solid or fluid, near the mouth, we may have much reason to fear a fatal termination.
Treatment. When a wound or injury has been received, from which tetanus may be apprehended; efforts should be made to

prevent its occurence, by a proper management of the local injury. Experience has fully established the fact, that the best means for preventing the disease is the production of free suppuration in the injured part. When this process can be fully established in wounds, even of the most unfavourable character, the occurence of the disease will almost certainly be prevented. It has been frequently observed, that the less inflamation there is in the injured part, the greater will be the liability to tetanus. This circumstance has suggested the propriety of exciting inflamation in the injured part by means of irritating applications. For this purpose we may apply spirits of turpentine, lunar caustic, caustic ley, cantharides, or, according to Larrey, the actual cautery, followed by warm stimulating poultices; or the part may be incised or scarified, and afterwards further irritated by some applications of this kind. When nerves or tendons are but partially divided by the injury, the division should be completed by free incision.

General remedies have also been recommended with the view of preventing this disease. Larrey insists strongly on the importance of preventing the access of cold and damp air to wounds, particularly, gun-shot wounds, as a prophylactic measure, Dr Thomas states that in the British army opium

is mixed with the dressings as a preventitive of this affection. Dr Clark advises a slight mercurial ptyalism after unfavourable wounds more especially in hot climates. An equable and comfortable temperature, with a simple diet and rest, are important auxiliaries in preventing the disease after wounds.

A very great variety of remedies and modes of treatment have been proposed, and occasionally employed with success in this frightful malady. Any one who consults the records of medicine for light on the remediate management of tetanus will probably find himself very much perplexed.

He will find the doctrine of its dependence on spinal and ganglionic inflamation strongly countenanced by examples of post mortem phenomena; and yet he will read, on the one hand, the laconic, but sweeping denunciation against the most powerful antiphlogistic — bleeding, is to be condemned; whilst on the other hand, he will find stimulants and tonics reprobated, and prompt and copious depletion pointed out as the sheet anchor of our hopes.

He will will find Broussais and others, ridiculing the idea of treating tetanus with stimulants and antispasmodics; and then turning to Morrison and other respectable authorities, he will learn that these are the very remedies which in their

An Inaugural Dissertation

on

The Congestive Fever of 1839

Submitted

to the examination

of the Provost, Regents and Faculty

of Physic

of the University of Maryland

for the degree of Doctor of Medicine

by

G W Miltenberger

15th February 1840 of Baltimore Md.

The Congestive Fever of 1839

as seen at

the Baltimore Infirmary.

This Fever first made its appearance in the Infirmary on May 17th & continued from that time till the middle of October. The first cases that were brought in were among the seamen & the disease did not appear among the citizen patients till near or about the middle of June.

This form of Fever was of course to all engaged in the medical department, one of the most absorbing interest:— Being a disease which was liable to be presented to us, in this section & indeed throughout the southern portion of our country, annually:— Caused by a febrific agent, the results of which we would be called upon to treat oftener than any other forms of disease!— Being more violent than the fevers of the same type, which had occurred in the house for many years & above every other consideration requiring such constant attention & so much discrimination in the treatment, as to render the progress of every case, a continued scene of instruction & excitement. Besides, the first case, appeared to

the students of the house, to be one of such deadly and fatal power as to impress it upon their minds forever.

Cause:- The cause of this fever was evidently Malaria. Every patient, without exception, who came in with it, had been residing in a malarious district. They were mostly labourers who were exposed to the heat of the sun during the day, their systems thus becoming more debilitated & more liable to be deeply affected by the poisonous miasm of morning and evening, to which, in most cases, they exposed themselves, or sailors, who would be still more exposed to the same predisposing & exciting causes, which were doubtlessly aggravated by the free use of ardent spirits by almost every one of them. The action of the exciting cause was certainly modified, by all those causes which are known to affect the action of Malaria upon the human system, thus giving rise to more or less irregularity in each individual case.

Preceding the developement of this fever, there were numerous cases of Intermittent Fever of unusual severity & uncommonly intractable, accompanied

always bey. evident marks of deep congestion, together with very many cases of Hepatic torpor & functional derangement of the digestive organs. This circumstance is important as regards the history of the disease, showing that the miasm must have been received in a more concentrated form than usual, from the fact, that all or most of those cases of Intermittent to which I have alluded, as occurring previous to the time of its developement, were generally more difficult, than in other years, to relieve and wore constantly the marks of deeper congestion. The cases also of Hepatic torpor and functional derangement, coming under our notice, before its breaking out and during its prevalence were extremely obstinate. So very powerful indeed was the impression of the morbific cause upon the brain, that in one well marked case, (a patient who appeared to have been a strong, hearty man), the pulse, for four or five weeks, never rose above forty strokes in the minute, although, during the whole of that time, he was kept constantly upon tonics, after passing through a proper mercurial course.

Symptoms:- The patients never entering the house till some days after being attacked, we were thus deprived of the opportunity of following the disease through all its stages from first to last, but judging from the cases of Intermittent, prevailing before & at the time of the prevalence of this disease, and from the usual course of fevers of this kind, we may conclude that the following was the train of symptoms, occurring, with slight modifications, in every case:- Exposed to the constant action of this mischief-working agent (Malaria), which acts like a narcotic poison first attacking the brain and nervous system, the patient first experiences a slight sense of lassitude- an inability to confine the operations of his mind, to any particular subject, with his accustomed powers of concentration,- a general uneasiness,- loss of cheerfulness; muscular weakness &c. These symptoms continue for some time & perhaps the next step in the disease, which attracts the attention of the patient, is a loss of appetite & derangement of the digestive functions and now is indeed the work of disease

fully commenced; – at this time the portal congestion & that of the Liver begin to show themselves by these and other symptoms: – The tongue becomes covered with a fur which at first light, gradually darkens through every succeeding stage, – the pulse becomes slower and depressed, – there is a sense of weight and fullness about the right hypochondrium and the epigastrium, – there is a want of bile in the evacuations, (if any) from the alimentary canal and almost constant constipation. These symptoms are thus produced: – Malaria in its primary action is now almost universally acknowledged to be a sedative and upon this principle alone can the phenomena of fevers arising from Marsh-Miasmata be explained. This primary deperefing influence is exerted upon the brain, the energy of that organ is diminished and it is no longer enabled to communicate the usual nervous power, to the nerves proceeding from it. Hence arise the lassitude, sense of weakness, want of power of the mental faculties &c. The cardiac plexus of nerves not receiving from the brain their due nervous stimulus, the power of the heart is lessened & its contractions enfeebled.

The blood not being impelled with its ordinary velocity by the heart, is not driven throughout the capillary system, the contractile power of the heart being so much diminished, that it can not force the blood out of the larger blood-vessels and consequently congestion is there formed, or if we believe that the circulation in the capillaries is carried on by their peculiar power of vital expansibility, this power is so much lessened, that they can no longer contribute to relieve this congestion. From the condition of the system thus briefly detailed, we can readily see how the slow, oppressed pulse, the sensation of weight and tension in the hypochondrium & epigastrium &c occur

Now from the physiological fact, that the portal circulation is farther removed from the centre of the vascular system, than any other equally important part of that system and that consequently when the action of the heart is diminished at all, this circle is among the first to be sensible of and to suffer from the change, we would naturally conclude, that, in such a state as was above mentioned, this would be the first point, where we should

expect to find congestion & this is actually the case. Now, at the same time that this occurs, the force & the circulation being, of course, lessened in every part of the system, the brain falls into a state of congestion and consequently becomes more infeebled, imparts still less the nervous power and increases the evil by which it was condition was caused. We thus have great derangement of both the nervous and vascular systems and from these may be traced all the phenomena of the disease. The excretory and secretory apparatus depend for the proper performance of their functions upon the nervous influence they receive and upon the quantity and quality of the blood distributed to them and as it has been shown that these organs do not receive their full share of nervous energy, as the blood, with which some of the organs are absolutely turgid (those connected with the portal circle), whilst others are almost entirely deprived of their usual quantum of the circulating fluid, differs so much in quantity from their ordinary supply, the quality also being changed, we should look for these very derangements, which are constantly present.

I say the quality of the vital fluid is changed and for this reason; - from the condition of the nervous system, the lungs do not act with their united power, (the respiration being laborious and oppressed), at the same time, that from the decreased action of the heart, the ~~same~~ usual quantity of the circulating fluid is not sent through them and there can not, of course, be effected that necessary change in the character of the blood, which takes place in health.

Having thus seen the reason for the derangement of function of these secreting and excreting organs, let us go a step farther and observe, what organs are particularly affected. First we perceive the want of bile in the stools if any evacuations do occur, - we find the sensation of weight, before spoken of, in the region of the liver and in the advanced stage, we have the yellowness of the conjunctiva and sometimes the yellow tinge of the skin, now known not to be caused by the bile being absorbed and carried into the circulation and thus throughout the system, but by the element of the bile not finding their usual outlet from the secreting vessels of the liver, being

retained in the blood and carried in the course of the circulation to every part of the system. All these evidently point to the liver as being in a state of deep congestion. The next point is the constipation and how to account for it — To produce the regular alvine evacuations, two things are essentially requisite, — first, that the muscular coat act with its usual energy, in order to do which, it must receive its full share of nervous power, so that its tonicity be preserved, — but this we have seen it can not receive in the state of the system, which I have been endeavouring to depict; — And secondly, that the mucous glands, the glands of Brunner and the glands of Payer perform their function of excretion with their natural activity, — but this also we have found to be impossible while the system is labouring under this incubus (Congestion). But we must also recollect that the Liver is not now throwing off its bile, which, whether it be, as supposed by some, the natural evacuant or not, is, certainly, absolutely necessary to the proper performance of this function. We find farther this state of congestion, with the derangement consequent upon it, giving rise to irritability of the stomach.

The tongue at the same time by its altered appearance, evinces plainly the deranged condition of the secretions of the alimentary canal and is here one of the most important indices to the state of the disease, — it is one of the first to warn us of the approach of danger from this quarter, and is the first to inform us of any change for the better, which may take place in the course of the disease.

Next the Skin: — From the fact, that the process of calorification is performed by the capillaries, and keeping in the mind the state of the circulation, the inability of the heart to force the vital current through its usual channels and the depressed condition of the nervous system, what would we be led to expect? Pallor and coldness of the surface, and such is constantly the case, except upon the lips and cheeks, where the cuticle is more delicate, and there, from the congestion, we find a bluish, livid tinge, another invaluable index of the morbid condition. Farther than this, and this we would anticipate from what has been said of the exhalent function, we find the skin dry,

harsh and constricted, — no perspiration, losing entirely that softness and pliancy so observable in health, except in the last stage of the disease, where we sometimes see a discharge from the exhalents of the surface, and at other times an analogous discharge from the mucous membrane of the intestines — free and copious. This however is not a natural operation it is not a secretion, it is a mere giving away of the extreme vessels from congestion and an exudation from their patulous extremities, of the fluid part of the blood, from mere debility and consequently these analogous discharges are both of a serous character.

That from the mucous membrane of the intestines is thus caused; — The portal circle is in a state of deep congestion, — it has but two outlets, by which to relieve itself, — the liver and the returning veins from the intestinal canal, which communicate with the Vena Portae. The Liver can not secrete bile, its natural secretion, in its present situation and the only other outlet is into the intestines, through the extremities of the veins, in the manner I have just stated.

This congestion of the portal circle, cutting off one great avenue for the blood, through which it naturally flows, the circulating fluid must take some other course and a still greater quantity is forced to the brain, already overloaded with more than it usual supply, farther increasing the congestion and want of power of that organ and consequently the nervous debility already existing. Thus one morbid condition is continually exaggerating the other, untile finally the powers of the system are worn away and sink from debility.

Post-Mortem appearances! — Upon examination after death, of these few cases, which terminated fatally, (for only six died out of eighty-to a hundred patients), there were, as was expected, no appearances of structural lesion sufficient to produce death.

In only one case, did we find enlargement of the glands of Brunner and Payer. In most cases we discovered some appearances of congestion of the Liver and Brain, but upon the whole, the result of these examinations was such as to lead every one to attribute the fatal termination of the case, to want of

nervous energy to support the powers of life.

The pathology of this Fever evidently consists then of deep congestion chiefly of the Liver and Brain, and of nervous debility.

Treatment. – We have two therapeutical indications to fulfill; the to relieve the existing congestion; – The other to arouse the nervous energies and to strengthen the system.

Blood-letting! – Venesection was never employed after the patient came to the Infirmary. It is certainly a valuable means in the removal of congestion, by equalizing the circulation and requires as much discrimination and judgment in its employment in such cases as any other point of practice. But so powerful had been the primary depressing effect of the poison, so far had the powers of life been overwhelmed by it and so slight was the tendency to reaction, that the employment of the lancet was entirely contra-indicated. It had been used in some cases before the patient entered the House and as far as my recollection serves me, every one, who had been so depleted, died.

In some instances where great irritability of the stomach was a prominent symptom, local blood-letting was resorted to, but in many even this could not be hazarded, for fear of exhausting still farther the little nervous energy which appeared feebly to fan the lingering spark of life.

Emetics:- These may possibly have been used and with great advantage in the very first or forming stage of the disease, when by their action they would have forced the circulation to the surface, thus equalizing it and tending to remove local congestion, and also by their mechanically compressing the liver ~~have~~ forced that organ into secretion, while its functions were still but slightly deranged, but in the stage of the disease, in which it came under our notice, it was far too late to expect any good results from their employment.

Purgatives:- were but seldom prescribed, on account of the already great tendency to prostration, except when it was ~~found~~ discovered that the patient had not been properly purged in the commencement of the attack and even then but one purge

was given of the following character;-

℞.

Protochlor: Hydrarg: - -

Pulv: Jalap: - - - āā grs: X

or ℞. Protochlor: Hydrarg: - grs: X

followed in four or five hours by;-

℞. Ol: Ric: - - ℥j.

With the exception of these cases, it was seldom found necessary to administer a purgative, trusting to the next remedy I shall mention, to produce a slight evacuation at a proper time.

Mercury:- I now come to speak of that remedy which was the very sheet-anchor of all hope in these cases, without which the hand of the physician would have been paralysed, but with the aid of which, the disease was most successfully combatted and triumphantly conquered,- I mean Mercury.

It would be worse than useless to go into any explanation of its action in these cases,- the indication to be fulfilled and the manner in which it was fulfilled by this remedy are too plain to escape the glance of the most superficial observer.

It was administered in the form of the Protochloride in grs. ij doses, every two, three or four hours or even at longer intervals, as the system seemed to demand a more or less prompt and speedy relief from the existing congestion. In all cases, the relief, upon ptyalism becoming manifest, was almost instantaneous, and in no case, where the constitutional effect of Mercury could be produced, was the patient lost. It acted, indeed, like a charm and after the induction of ptyalism, all, that, generally, remained to be done, was to strengthen the patient gradually and with care. This remedy was always administered in combination with the next noticed:—

Stimulants:— Such was the state of the system, as must have been already inferred, from what has been said, that while local depletants, as the Mercury, were given with the one hand, this class (stimulants) had to be presented with the other, so nicely balanced, in most cases, was the scale of life and death. The stimulants almost universally employed, were

[illegible]

Carb: Ammon:, Camphor & Infus: Serpentar: with Sulph: Quinin: The usual form of administration was; —

℞ Protochlor: Hydrarg: —
Sulph: Quinin: — āā grs: ij
℞ Ammon: Carb: — grs: v

Each every four or six hours, alternately, together with this; —

℞ Rad: Serpentar: — ℥j
Aq: Fervent: — ℔j

one a wineglass full intermediately with the above pills.

Almost as much benefit was derived, in every stage, from Epispasts: as from any other individual remedy, and perhaps the safety of the patient was as much to be attributed to them. Applied over the region of the liver they were very valuable adjuvants, and also over the stomach, in those cases accompanied with gastric irritability. In the latter stages of the fever, they were exceedingly important as stimulants. Cold applications to the head, were also of great service.

In the advanced stages of the disease, when the powers of the system were very much depressed, and also when there was still evidence of some source of irritation being lodged in the canal, an enema of Ol: Terebinth: was found decidedly beneficial in its operation. It acted in three ways – by dislodging from the canal any offending substance, – by exciting the nervous extremities of the part to which it was applied and arousing also the whole system and by acting as a revulsive to the brain.

In cases where a diarrhea came on, astringent & anodyne enemata were prescribed, of Tinct: Kino & Tinct: Opii combined.

In those cases, in which during the latter stage, a diarrhea of that serous character, to which I have referred in speaking of the symptoms, occurred, it was at times, with very great difficulty, that the patient could be sustained under the exhausting character of these discharges, superadded to the depressing influence of the disease.

In such cases, in addition to the above-mentioned remedies, a favorite prescription and one which proved very beneficial, was:-

℞. Pulv: Cinchon: - ℥j
Rad: Rub: Ilios: - - ℥ss
Rad: Columb: - ℥ij
Aq: Fervent: - ℔ij

A. mineglassfull every three or four hours.

Diet:- In the earlier and indeed in almost all stages of the disease, caution on this point is almost superfluous, as the appetite is destroyed and there is seldom, if ever, any desire for food.

In the commencement of convalescence a little tapioca and like articles may be allowed.

During the whole period of convalescence, the diet should be of the lightest, most digestible and least irritating description.

Finis.

An
Inaugural Dissertation
on
Milk
Submitted to the Examination
of the
Provost, Regents & Faculty of Physic
of the
University of Maryland
for the
Degree of M. D.
by
Thomas C. Worthington
of
Maryland.

February 1846

I intend here to consider the milk of Asses, Sheep, Cows, Goats, and the human person, as they are very similar in all their parts. Milk is of a much greater consistence than water, its specific gravity greater and it is repelled by certain vegetables that do not repel water, it freezes at a lower temperature and requires a greater one to boil it. It consists of oily Coagullum and aqueous, or Cream, Curd & Whey. When first drawn is a simple or homogeneous fluid, but when decomposed by boiling &c. we discover it to be the above compound, the oily part seperates first, the broader the vessel the more cream we obtain. When exposed to the air becomes acid and then coagulates, Thunder and a certain disposition in the atmosphere to produce it has long been observed to assist the assescency and coagulation of it and consequently retards the seperation of its component parts. Vegetables which are very watery produce little Milk and this of a very inferior quality and cattle that eat them require more salt for their support, than those that live on a more dry diet. Vegetables raised in

a place subject to the action of light afford more milk and of a superior quality to those raised in the earth or cellars as potatoes, turnips &c. I do not suppose with Dr Cullen that the formation of butter depends on the agitation of the cream, but to the extrication of air (Carbonic acid gas) in the south of France it was and I believe is still a common practice for the dairy maid to immerse her naked arm into the cream which she is about to churn and this hastens the seperation, the heat of the arm discharges the carbonic acid gas. There is says professor Chaptale an increase of four degrees of heat during the extrication of this gas. This extrication accounts for the less tendency the oily part has to acidity when in the state of butter than when contained in the milk, Butter has a great tendency to rancidity. If melted when first made is said to remain longer without acquiring that property, but the best way to preserve it is to put it up with sea salt. Sal Nitre & sugar the cheese is made by the addition of Runnett the coagulating part is not supposed to depend on an acid but on some peculiar substance contained

in the Stomach of the Calf in which it is coagulated
Madder, the Artichoke &c. coagulates the cheesy
part of milk. Lime water occasions a very
imperfect coagulation, Milk or cheese when
distilled gives us a portion of Volatile Alkali
this may be easily accounted for since we know
that most if not all vegetables on distillation
as the mustard, Horse Radish &c. contain it.
Cheese is generally made by the coagulation of milk formed
by the addition of Runnett. the quality and color
depends on the manner of making it, the
aqueous part, the Whey or Serum Lactum of the
Chemists enters freely into the composition of all
kinds of milk, According to the experiments
of Dr. Hoffman and Young the watery or
aqueous part is 7/8 of the given quantity of milk
the residium of four ounces of Cows & womans
milk was precisely the same. In the Operation
of churning the aqueous part is seperated. It
is called butter milk & contains an acid
some of the oily part, or butter and some of the
cheesy part a curd, the oily part of goats
milk does not seperate so soon as that of Cows

The whey contains a sachaine matter similar to sugar it is obtained in the following manner. the cream is seperated as usual the curd is then seperated by means of a fire or acid. the Whey is then set by to evaporate and we obtain the sachaine matter in white cakes at the bottom of the vessel, these cakes dissolved in boiling water, precipitates in Rhomboid Crystals. this is good and similar to that obtained from the sugar cane &c. It contains a peculiar acid called by chemists the Sacc Lactic acid. The whey contains sugar, the Muriate of Potash, the muriate of soda and the phosphate of lime, The sulphate and Muriate of Lime is found in mares milk, The Asses milk affords the most sugar, this is the reason why it is the most nutritious, the mares milk next, the human persons next, the Cows next the goats next and the sheeps least of all. The milk of cows have been found on chemical analysis to contain, Cream, Curd, Whey, gelatine, muriate of soda, muriate of Potash, Carbone & portion of Sulphur and the phosphate of Lime.

The phosphate of lime I think is a necessary component part of all milk, The Koumis is a wine obtained from the milk of cows and mares by the Tartars, and that obtained from the milk of mares they prefer, they obtain the vinous fermentation by means of agitation acid and heat. The caseous or cheesy part of milk is greatest in the Animalia Ruminentia as the goat &c, and less in the Animalia Non Ruminentia as the human female &c. The ewes milk contains most of the cheesy part and the asses milk least. The milk of the whale contains more of the oily part than that of any other animal as has been proved by Dr. Jenner of London, A whale was accidentally thrown on the shore in England with her young ones and he obtained her milk while alive. The milk of a woman differs from that of the cows in the three following particulars. 1st It contains more sugar, 2nd It will not make butter unless the woman is restricted to a diet solely vegetable, which is very rarely the case, and 3rd it contains less curd. the more

Oily or animal diet the Animal eats the more cream the milk contains, this accounts for the milk of the Whale affording more cream because its diet is purely animal. The milk of a woman unless restricted to a vegetable diet only, is not coagulable by any of the vegetable Acids. The Chyle after being conveyed to the Thoracic duct by the lacteals is carried into the Subclavian vein where it is generally intimately mixt with the Crimson fluid that this vessel contains it is then carried to the right Ventricle of the heart and from thence distributed to the Mammæ where it is secreted, blood when drawn after taking in a large quantity of aliment or from a person labouring under diabetes Meletes, Vertigo, palpitation of the heart, gout &c. sometimes have discovered a white Chyle floating on its top, says, Dr Barton. from 20 ounces of blood drawn from my own arm when labouring under a gouty Affection after eating I obtained an ounce of pure Cream or the Oily part of Milk and an ounce of Whey similar to that of milk. this is certainly not agreeable to the healthy law of the Animal economy, but does most

generally take place in the diseases I have mentioned. The milk is afforded by the chyle obtained from the aliment last taken in that such is the case I infer from this. If a cow eats wild onions or any powerful odoriferous substance, milk drawn a few hours after will taste of this peculiar odor, and it will even be found in the butter obtained from it. A Cathartic given the mother if it is detained long enough in the intestines without purging her, for a part of it to be taken up by the lacteals, the milk will purge the child violently. We may readily account for this when we know that it being taken up with the Chyle by the lacteals is conveyed by the usual course and there secretes with the milk. A grain of Calomel (says Dr Barton) given the mother when not more than 1/2 of it could be taken up by the lacteals has been known to produce purging & Griping in the child when 4 grains taken in the common way would produce no effect. If such be the case would not we be led to infer that in Hydrocephalus internus of

suckling children, a disease in which the bowels are always very ~~costive~~ torpid and consequently difficult to be moved, that it would be better to give the Cathartics &c intended for the child to the mother in small doses, so as not to purge her, but to be taken up by the lacteal, and conveyed to the child through the agency of the mothers breast. I believe the purging &c of children frequently depends on the agitation of the mother conveyed to the child whilst at the breast, we know if the mother is much heated and the child sucks her it immediately becomes very sick and languid & a puking & purging frequently follows. It has been asserted by Dr. Cooper that children sucking nurses labouring under salivation also become salivated, but does not believe that it is caused by the perspiration and breath of the nurse but by the Milk. If a nurse takes Mercury it diminishes the quantity and quality of her milk, the atmosphere of rooms in which a salivation is going on will affect some persons. Dr Hampsley of Hagerstown (Maryland) has proved that it is more difficult

to salivate children from one to three years old than at any other period, Globules of Mercury have been discovered in the milk of women who were under its influence by evaporating it very slowly. Notwithstanding all that has been said, I believe that attempts to cure children of syphilitic affections by giving the mother the medicine intended for the child would always be a precarious and uncertain method. If a woman is fond of ardent spirits and frequently becomes intoxicated her milk will not affect the child, but if the child of this drunken woman is carried to the breast of one who did not indulge in the evil it would become emaciated unless the woman always gives it a little toddy before or after sucking. A nurse ought to be very regular as to the time of taking her diet and as to the quantity and quality of what she takes. Dr. Cullen supposes the sugar of milk is afforded by the saccharine matter of the vegetables of which the animals diet is composed and that it floats for a considerable time in the vascular system unassimulated with the fluids they contain

Will the former part of this Opinion I perfectly agree but I cannot believe it ever floats for any considerable time unassimulated with the fluids of the vascular System, as this is sometimes the case as in the diseases formerly mentioned I doubt not, but if the body is in perfect health I cannot believe it is ever the case, Milk of Carniverous Animals contains less sugar than the Milk of Herbiverous - but that of Carniverous will occasion in us great thirst whereas that of Animals whose diet is entirely vegetable will very well supply the place of water Milk is certainly the only proper aliment for Children, we see them a short time after birth searching as greedily for the nipple of the Mother as if they had been already accostomed to taste the food it affords, This appears to be kindly directed by the supreme being to prevent the retention of the meconium the Matter first discharged from the intestines of the newly born infant, for the expulsion of this the Milk of the Mother continues laxative for two or three days after its birth. The Children of Most of the Indians continue at the breast from one to two and not unfrequently

to three years. Dr Cullen says the longer a child continues at the breast of its Mother the greater is its tendency to Rachitis (or Rickets,) but I think necessary to say, I never heard of such a disease among the children of the American Indians. I ~~do not think~~ children may be weaned when five months old if circumstances make it necessary, but all should be continued at the breast of the Mother for at least 9 or 12 Months. Milk is ~~the best~~ very nutritious - it is the best diet that can be used in all diseases where the fluids are vitiated or in any chronic emaciation except Scrophulate Asses Milk particularly was much recommended for consumptive patients - and I believe may be sometimes good, but often injurious. Dr Sydenham did a great deal of injury by his indiscriminate use of this article in this disease. I have not a doubt he relied solely on it and exercise for the cure. ~~The~~ Celebrated Beauty in the West of England took a cold and went into a rapid consumption Dr Sydenham was called and recommended a course of Asses Milk, diet & Riding - about six hours before her death she said - I wonder Why the

article Asses Milk is so much recommended by physicians now a days for consumption for I find by the experience I have had of it "that the asses Milk is the asses remedy" Milk increases the frequency & fullness of the pulse, it is to many consumptive patients an indigestible aliment particularly to those who are unable to take much exercise, Gout is a disease often formed in a plethoric state, but ~~much less frequent~~ I cannot think with Dr. Cullen that Milk is always the best diet for gouty patients, he contends that Milk will never give a plethoric state to the system, This is an assertion that has always surprized me, as any thing that affords much nutriment to the system, will produce this state & Milk is certainly a very nutritious fluid, With those remarks I conclude the subject.

An

Inaugural Dissertation

on

Cholera Infantum,

submitted to

the Examination of the

Provost, Regents, and Faculty of Physic,

of the

University of Maryland,

for the

Degree of Doctor of Medicine;

by

Gideon B. Smith,

of the City of Baltimore, and State of Maryland.

February

1840.

The Cholera Infantum being one of the most fatal diseases with which the children of our cities are afflicted, it has attracted the attention and called into requisition the skill of more gentlemen of the profession than, perhaps, any other infantile disease, if we except Scarlatina And yet the disease holds its own, unobstructed in its progress, unimpaired in power, and certainly with little decrease in the number of its victims. The number of deaths by this fell destroyer increases gradually and steadily with the number of the population of our cities; every year our bills of mortality furnish the increased number as certainly as does the Census that of the population. This state of things does not appear to be attributable to any want of skill in the profession, much less to the ab-

lence of known remedies; but rather to the failure in proper and prompt attention on the part of parents, and others having the care of children, to the protection of their little charges from the heat of the sun, to affording them the benefit of cool, pure and free air on all practicable occasions, to the regulation of their diet, and to the prompt calling in of medical advice on the first symptoms of the disease making their appearance. It is be=lieved, if these were attended to timely and energetically, the disease would be rendered as harmless as dentition itself.

How often do we hear mothers excusing themselves for not calling the physician by saying — "O, its only cutting teeth, and will get better as soon as the teeth are through, &c &c — Fatal error! The time when medical advice and remedies could be of any avail, is thus allowed to pass away. The child is suddenly seized with the violent symp=toms of the deadly disease, and in a few hours, before any remedy can be applied

with effect, it lies upon its heart-broken mother's lap a lifeless corpse! — Sometimes, and not seldom either, it is enabled to pass through the more violent stage of the disease, and with a prostrated system and almost entirely disorganised functions, it enters upon the second or chronic stage; incapable, generally, of receiving aid from the more powerful remedies, and left almost entirely to the renovating powers of nature, when these have not been subdued by the previous ravages of the disease. In this condition the little sufferer lingers on from day to day, and from week to week, (and not unfrequently from month to month,) and at last sinks in death, or recovers, on the approach of cold weather, some portion of strength, (and finally gets well during winter. All this suffering (and death, it is believed, might be saved by the course on the part of parents just pointed out.

Medical writers generally attribute the remote cause of Cholera Infantum to Miasmata, to the foul air of crowded cities,

and confined and badly ventilated houses, and to solar heat. The proximate or exciting causes are believed to be the irritation of dentition, weaning, and improper diet, in combination or separately in different individuals. Solar heat is considered the grand primary predisposing cause, and the impure air of our cities only one of the agents of this cause in producing the effect. The nature of this predisposition is not entirely manifest; but debility, especially of the liver and digestive organs, and probably of the nervous system, may be considered as very probably the character and location of it. We have seen the disease in all its forms; in the houses of the rich and of the poor, in confined tenements, and in open and freely ventilated houses, and we have seldom failed in tracing its immediate origin to some fault in diet, or to dentition; but most generally to both combined. Improper diet, and especially the premature use of strong food while under the

debilitating influence of solar heat, and the irritation of dentition, may be considered as originating a great majority of cases of this disease. The prematurely feeding of children with strong food is believed to be the most common error in the management of children. It seems to be in vain that nature plainly indicates the time when a child may be permitted to take strong food by supplying it with teeth, when its digestive organs have been adapted to its digestion, and not before. Is it not the intention of nature to secure some valuable object by withholding teeth from the infant, and providing it with a supply of food from its mother's breast, until a considerable period after birth? If it is, do we not do violence to her laws, and frustrate her economy by attempting to give them any other food during that period? Why is not the infant provided with teeth at its birth, and why is it provided with the maternal milk? Can no other reason be given than

that it is intended expressly to prohibit the use of any other food than the mother's milk until the proper period? Nature never conceived of the ingenuity of mothers and nurses, or she would have deprived them also of teeth, that they might have been prevented exercising their masticatory powers in behalf of their delicate charges! That the delicate digestive organs of infants, therefore, might not be encumbered with strong food, the infant is not supplied with teeth. The mother's milk is the only proper food for the child, until it shall have made such progress towards maturity as to enable the digestive organs to operate on more solid matter — This progress is also indicated by the progress of dentition. The stomach does not become suddenly prepared for digesting solid food; hence the teeth are very gradually produced, and the molares or grinders, last of all, evidently with the intention that solid food shall be very gradually taken. But what is the practice of mothers? We every

day see them putting food into the infants mouth, even before it has learned to swallow any thing but milk. But especially is this the case as soon as dentition commences; and if improper before, it is much more so then, though from other causes. Dentition generally renders the stomach and intestines of a child more or less irritable, from sympathy, probably, of the mucus membrane with the gums; and if at this time improper food be taken, a disordered state of the whole canal is most certain to follow. Hence the reason why children are more subject to Cholera Infantum during the period of dentition that at any other. It is believed that those children that are permitted to continue at the breast till they have passed a second summer, are never affected by this disease. Certainly no such case has fallen under the observation of the writer. Neither has the writer ever known the disease to occur when simple food such as bread and milk, was the

It has been intimated that the prompt application of proper remedies will generally remove the disease. Small doses of Calomel, from 1/4 to 1/2 a grain, at intervals of two to four hours; the application of small blisters to the region behind the ears, in cases of cerebral oppression, sinapisms over the right hypogastric region, generally prove effectual.

In the secondary stage, in which the disease assumes the form somewhat of chronic diarrhea, it is equally formidable with the first, though not so rapidly fatal; and it is believed that much the largest number of deaths occur in this stage. It is with great deference that we differ thus in opinion with Doctor Ebele and most other medical writers; but our observation is our authority. In the chronic form of the disease, the little patient has been prostrated, and is now little able to withstand the further, though slow, encroachments of the disease or the powers of proper remedies. We are obliged

to temporize here; to palliate when possible, and by slow approaches and gentle means allure the monster from its victim. There is always hepatic derangement, as will be indicated by the absence of bile in the discharges; and hence small doses of calomel at short intervals are proper. To induce action in the skin small portions of ipecacuanha may be given with the calomel. This should be continued, if the patient's strength permit, till the liver is completely relieved; after which, gentle astringents, a decoction of blackberry root, rubus villosus, being the best, may be given with great advantage.

In this stage, however, there is a remedy of great and singular power. It is the petiole of the common garden Rhubarb, Rheum Rhaponticum. A simple conserve prepared from this plant with loaf sugar, has proved effectual in numerous cases, that have fallen under my observation.

The following is the history of the first case in which it was used under my care. In August 1829, my little daughter aged seven months, was attacked with Cholera Infantum, caused by dentition, and I believe, from taking solid food. The more violent symptoms soon subsided; but either from improper treatment or the continued irritation of dentition, the disease fixed into the chronic form, and she rapidly sunk, notwithstanding able medical advice was obtained. She linguered on, however, till the approach of cold weather, which put a stop to the disease. But during the winter the slightest deviation from the simplest diet, or allowing her any thing but her mother's milk, induced severe diarrhea or dysentery, and as soon as the warm weather of summer set in, the old disease returned in a violent form; but again soon subsided into the chronic form. It continued during the whole summer of 1830, resisting all the remedies prescribed

much left to walk. About 9 o'clock on the 4th. of July I incautiously presented to her little brother an apple in her presence, who she immediately asked for one also. Fearing the impropriety of gratifying her, I took her brother by the hand and went into the garden, that she might not be fretted by seeing him eat the apple; and on passing a large plant of Rhubarb, it occurred to me that I would gather some petioles and have a tart made for my daughter under the impression that that might not injure her. The tart was made and she ate a small piece at 12 o'clock. Her discharges had been as frequent as ten or twelve a day previously. It was observed by her mother that she had no discharge from the time she ate the tart till 4 o'clock, which was so remarkable I was induced to examine it, and found that it was highly bilious, though otherwise composed of highly offensive mucus and fecal matter. I immediately caused her to eat some more

extensively used in various parts of the Country, and, so far as I have heard, with distinguished success. It is only in the chronic stage that it appears to be applicable.

I am unable to explain its mode of action. That it acts upon the liver promptly and efficiently, I have no doubt. It possesses a slight astringent principle, and an acid which is very abundant and agreeable. It is also, when prepared, highly mucilaginous, and this may exert some salutary influence upon the mucus membrane of the stomach and intestines. I have used it in various other diseases and disorders, and in some with good effect; but in none with such decided advantage as in Cholera Infantum. In a torpid condition of the bowels, when constipation is so troublesome, I have always found it a most salutary and agreeable remedy. In the few cases of dyspepsia in which I have used it, and in my own person particularly, it had an excellent effect;

effect, I have given simple cold water instead, and the result was not changed. I have, in another case, reversed the experiment, giving the cold water first and the Bene water afterwards, (and there appeared no difference.) The effect of the Bene leaf on the water is singular, (and, so far as I have heard or read, unaccounted for.) In a few minutes after its immersion, the water becomes mucilent, being quite slimy to the touch; but this is not perceived by the patient when drinking it, nor is there any other quality than that of water perceptible either to the eye or taste. This would indeed be an invaluable property, if there were any other medicinal virtues in the liquid, as after taking the leaf from the tumbler, the child supposes it to be water, for which it is almost continually thirsting, and takes it greedily.— The water loses all this mucillaginous property in about thirty minutes after the leaf has been

be injurious in Cholera Infantum. I have found children labouring under the disease in the chronic form, that had not tasted water for weeks, and heard them calling in their infantile and feeble accents for drink, and on directing water to be given as much as they would take, and as often as they desired it, have never failed to witness its beneficial results. If it did not relieve the child of the disease, it certainly died of most excruciating misery.

In the treatment of this disease, as in most others, it would seem that the mind of the patient exerts no small influence; and for that reason all its little cravings should be gratified, as far as practicable and consistent with the nature of the case. It is believed that the fever in the chronic form of this disease is often caused by the child's thirsting and fretting

for water. True, the fever may cause the thirst in most cases; but it may be equally true that long continued thirst will cause fever.

Conjointly with other remedies, free exposure to fine air should always be availed of when practicable. For this purpose removal to the country, to some high and salubrious situation, always proves beneficial, and will generally, with other proper treatment, restore health.

An

Inaugural Dissertation

On

Albuminuria and Bright's Disease

Of the Kidneys;

Submitted

To the examination of

The Provost,

Regents, and

Faculty of Physic

of

The University of Maryland;

For

The Degree of Doctor of Medicine,

By

Jno. H. Turner.

of

St. Mary's County Md.

February — 1840.

To

Alexander C. Robinson M.D.,

One of the Physicians of

the Balt: City & County Alms House,

This Thesis

is gratefully

Dedicated

By

An admiring Pupil.

Albuminuria in connection with Bright's Disease of the kidneys.

Until very recently, the pathology of the Urinary Apparatus was comparatively neglected, & consequently little understood. The importance of the due performance of its function, to the health of the Animal economy, has, however, been known since the times of Hippocrates. When we take into consideration, the constant Activity of the kidneys, the great variety of solid & fluid substances, which they daily separate from the blood; & the readiness with which, many Agents, external as well as internal alter the character of the secretion, it would be reasonable, to expect to find them subject to morbid processes. The investigation of the subject, by Pathologists, of high repute, has satisfactorily shown that such is the fact, to a much greater extent than was formerly supposed. Animal Chemistry has contributed, much, to the improvement of this branch of pathology: And to it principally are we to look for its perfection. Without its aid it would be, almost, impossible to detect the various Calculous diathesis & Afterwards equally so, to adopt the appropriate remedial & prophylactic treatment. In Bright's

disease it affords, if not a pathognomonic, at least the most valuable symptom of this insidious malady. In a variety of other affections according to some good authorities, it lends material assistance. The importance of Animal Chemistry, in diseases of the urinary organs, was, strongly, urged on the class of our University by Doct. T. T. Bakes.

The affection of the kidneys, known by the name of 'Bright's disease' is decidedly the most interesting of this whole class. Although only a short period has elapsed since its discovery, notwithstanding the cautious, I might, almost, say the reluctance, with which the profession generally, received Dr. Bright's observations on this subject, the mass of facts accumulated, in confirmation of these observations, is greater, than was ever before made, in the same time, in relation to any one disease, in the history of Medicine. The profession is, however, even now very far from being familiar, acquainted with this disease: this remark is particularly applicable to our own country. I do not know, that any one this side of the Atlantic has devoted particular attention to it. A few scattered & unconnected observations have been made it's true, but in such a manner,

as to be of no value to the profession. This is to be regretted, since doubtless, the disease will be found, as extensively prevalent in this country, as in Europe; our climate & the habits of a certain class of our citizens strongly predisposing to it. Dr. S. Bright estimates, not less than 500 dies of it annually in London: I think this estimate far too low, as he says that 40 cases may always be found in Guy's Hospital alone. Dr. Christison & Gregory of Edinburgh found it equally prevalent there. Dr. Osborne has established the same fact in relation to Dublin & Mr. Rayer & Solon of Paris (whose works I have not seen) have met with it equally often. With such an array of high authorities, on the common occurrence of this disease, in their respective localities, can we for a moment, doubt, that if attention was turned to it; in our climate it would be found of frequent occurrence also.

The most important & interesting feature of this affection, is the remarkable change which the urine undergoes in its chemical constitution; while its sensible properties are frequently unaltered, or nearly natural. The specific gravity of the urine, gradually diminishes,

as the degeneration of structure progresses. The urea also grandually loses its healthy proportion to the other constituents & after a time, may be detected in the serum of the blood. A principle (Albumen) not existing in healthy urine, or if it does exist, in such minute quantity as to be inappreciable to the most delicate analysis, makes its appearance, & now abundant in the first & middle stages than in the last. This symptom is by far more important than any that occurs in the whole course of the disease. It is best marked in the early stage, when most of the others are absent, and therefore calls for our closest attention. For by it only, so far as is yet known, can we detect the commencement of the morbid process: the only time when it appears to be amenable to treatment.

It is the presence of this proximate principle in the urine, which has given origin to so much contradiction & discussion in the medical world. Drs Wells & Blackhall found, that in inflammatory dropsies the urine was frequently albuminous, some time ago. But to Dr Bright is due the merit of having discovered the relation that albumenuria bore to a peculiar granular degeneration of the kidneys.

This symptom is regarded with various

degrees of importance; while some look on it as almost pathognomic, others attach little or no importance to it. In the last class are ranked Dr. Graves of Dublin, and Dr. Cheyne of London, with many others of equal reputation. In Dr. Graves' opinion I have the highest confidence; But the following cases (which I have studied & recorded as carefully & accurately as my limited experience & opportunities would permit) incline me to adopt the opinion, not, that Albuminuria is pathognomic of any disease, but that taken with the other symptoms of Bright's disease, it affords strong ground for diagnosis, & that its presence should under all circumstances attract our attention to the kidneys — I have not had sufficient experience to satisfy my mind on this subject, as it has only been six months since I turned my attention to it. It would be presumption in me to give an opinion that high authorities (having carefully investigated the subject for 13 yrs) differ so essentially. The secondary affections, which, so often, occur in the history of this disease, are generally interesting & important; as they are in nine cases out of ten the cause of the fatal termination. That they depend on the kidneys for their origin remains to be proved. Much has

been fair of Albumen occurring in the Urine in various diseases & conditions of the body. Mr Simon thinks that it occurs, as a critical discharge in many acute affections & bases on it a favourable prognosis. He detected it frequently in intermittent fevers, in the febrile exanthemata, in typhoid fever, in Bronchitis & Pneumonia. I examined the urine in 12 cases of intermittent fever (4 of them had dropsy at the time) & in none of them could I detect the slightest trace of albumen. In one case of typhoid fever the urine was slightly albuminous for a few days before the death of the patient, only: there was no appearance of disease in the kidney after death; I have never detected it in any stage of pulmonary inflammation. Wistar thinks albumen is secreted with the urine, when the system is under influence of the mercurial preparations; in 8 cases of salivation, it was detected in one only, when hydrothorax, ascites & anasarca existed at the same time. The albumen disappeared with the salivation. In 25 cases of dropsy depending on various causes & including the cases given below, six coagulated by heat & nitric acid & one by heat, nitric acid & acetic acid; this last was a case of pregnancy & dropsy, with hypertrophy of the liver & spleen. The precipitate must have been caseine; it could not have been

Albumen, as Acetic Acid does not Coagulate this principle. This is the only instance (but of six cases of pregnancy) that presented this kind of precipitate. I mention this fact, (though not connected with my subject) because the precipitation of Caseine, in the Urine, is regarded by some as a sign of pregnancy — Lately, as a matter of curiosity, I examined the Urine of 120 patients, labouring under various Acute & chronic diseases (mostly of the latter kind) only 5 presented any trace of Albumen: of these one was the case of typhoid fever mentioned above, one the case of polycythemia, one a case of delirium tremens, in which the albumen disappeared in a day or two, & two were cases of Bright's disease given below* — These observations are too scanty, to justify any inference; I shall therefore draw none —

There is diversity of opinion as to the most delicate reagent for detecting the presence of Albumen. M. Rayer thinks nitric Acid the most delicate, while Dr Christison thinks Caloric the most delicate, & least liable to cause error. M Rayer says that Acetic Acid in large quantities, Phosphoric in large or small & Nitric in small quantities deprive Albumen of the property of being coagulable by Caloric; but not of being

*Dalton v. Temperance Scott.

precipitable by Nitric Acid. Dr Christison found that sometimes Nitric Acid added in excess, did not separate albumen, which has been present in large quantity. If in Alkaline urine a precipitate is thrown down by boiling, it is usually due to the presence of phosphates; In this case a few drops of Nitric Acid will restore the transparency.

If urine be muddy from the deposition of Ammonia heat will remove the turbidity — Nitric Acid will cause a precipitate of lithate of Ammonia. It is evident from these facts, (established by Christison & Rayer) that the concurrence of coagulation by both of these reagents is necessary to prove that a precipitate is albumen — Even this is not sufficient in all cases, as the urine of the Pregnant Woman shows, which was coagulable by Acet. Acid, as well as by the two last agents — Acet. Acid will destroy albumen of coagulability if added in large quantity. So that if we have albumen coagulating by Caloric & Nitric Acid but not by Acet. Acid, it is proof of the presence of albumen — In my fourth case, the urine, at one time, coagulates by heat & Nitric Acid alone. Now there is a small precipitate produced by boiling & no change by Nitric Acid or Acetic Acid. Corrosive sublimate & Creasote render the urine turbid & milky. It was a task to explain the cause why Nitric Acid would not

(as formerly) coagulate this urine. I cannot find the explanation in any of the authors. I tried the following experiment — I got some clear serum from the pericardium of a patient that I lately died & put six drops in a half oz of my own urine (which was not affected by any of the reagents) I then divided the urine into equal parts. I on being eight drops of nitric acid, then added to them the least sign of a precipitate, boiling caused a precipitate readily — Creosote & corrosive sublimate also caused a precipitate in the same quantity of serum urine; acetic acid did not. I tried this experiment repeatedly with serum urine obtained from other sources with the same result. When I added a large quantity of serum, the nitric acid coagulates the albumen immediately. This satisfactorily proves that caloric is a more delicate test than nit. acid.

Case 1st

Phthisis; Pneumothorax; extensive softening of the brain; fibroid tumor of the Uterus; Chronic inflammation of the stomach & intestines, with fatty deposition under the mucous coat of the jejunum & Caput Coli; Degeneration of the kidneys. Convulsions & death —

Temperance Scott Ret. 46, the subject of this long chapter of diseases, came to the Olive Street, some time ago, labouring under the usual symptoms of Phthisis namely, cough, tubercular expectoration, hectic fever, night sweats, emaciation, great weakness, diarrhoea, vomiting, with nearly total loss of appetite. She stated that she had had several convulsions. She was stupid & childish as to her intellect, & incapable of giving a rational account of herself. As the case was manifestly hopeless, she was put on a merely palliative treatment & not much attention was paid to her, except to relieve the symptoms as they occurred. My attention was attracted to this case in the first instance by finding her urine contain a large quantity of albumen. In addition to the above symptoms, I found that her legs were oedematous; that she complained of constant pain in the back. The exact quantity of urine could not be ascertained in consequence of the diarrhoea. She complained of no pain in the head,

had full use of all her muscles; walked well & was her among well — No paralysis — No contractions of the limbs —
The urine was natural as to colour & coagulated constantly by caloric & nitric acid. The coagulum occupied about one third of the fluid on standing — She had a second convulsion about two weeks before her death; & another a few days preceding that event — These were the only convulsions that she had while in Hospital. —

Post Mortem 48 hours after death. Body much emaciated. Lower extremities œdematous. There was a fatty tumour larger than a hen's egg below Poupart's ligament — There was also a fibrous tumour, about the size of an almond, in the middle of the arm; growing from the fascia — On cutting into the pleural cavity, there was an audible escape of air from the right side. By forcing the air into the lungs, by means of a pump, the left lung was fully expanded; while the right remained collapsed & the air could be heard escaping from it. The antero-lateral portion of the ribs being carefully removed, a fistulous opening as large as a goose-quill, was discovered between the second & third ribs. The lung adhered to the summit of the pleura: There was also a broad band just anterior to the fistulous opening. The lung was considerably compressed. Its surface

was covered with semi-organized lymph. There was a small quantity of purulent matter in the bottom of the pleural sac; not exceeding three or four ozs. The upper lobe contained one large cavity, lined by a complete vascular membrane & had a large bronchial tube opening into it. Below the fistulous opening existed, the wall of the cavity was about two lines thick. The left lung at base superiorly was the one small cavity & a mass of crude tubercles in the upper lobe — Heart normal — In the head there was a fibrous tumour as large as a walnut, attached intimately to the dura mater, over the middle lobe of the right hemisphere of the cerebrum — Its structure was very dense & cut like cartilage. The brain around the tumour was completely disorganised & then the consistence of thin cream. The whole of the outer & lower portions of the middle & anterior lobe was in this state of disorganisation. It extended to the lateral ventricle, to half of the corpus striatum & to the surface of the optic thalamus. Every other portion of the brain was firm & healthy in appearance. The Pia-mater was slightly congested —

Abdomen — The mucous membrane of the stomach was pale greyish — & had its whole surface studded with a vast number of globular expressions of various sizes

The free extremities of these excrescences were rounded & presented no appearance of an opening. Below the cut ends they were solid & of firm structure. The mucous membrane was thickened & indurated. It could be stripped off to any extent. The submucous tissue was also hypertrophied. In the commencement of the descending, between the mucous & sub-mucous coats, there was a fatty deposit as large as a bean — there were four or five little tumours of the same character in the caput coli. This kind of deposition under the mucous coat is of rare occurrence; I recall to my only seen it once, & he says that it is not mentioned by any author so far as he is aware. There was a number of minute excavated ulcers in the small intestines (probably in the glands of Brunner) with a melanotic deposit on their bases. Besides the fatty tumour in the cæcum there were several large ulcers, with elevated ragged edges & a lardaceous covering. The colon was extremely ulcerated. The follicles were very much enlarged. Liver apparently healthy. Spleen small. The kidneys were much enlarged. The right weighed 9 oz & a quarter. The left eight & three quarters. The fibrous covering was delicate & adhered slightly. The surface was smooth & regular & presented the most

distinct & beautiful yellow granulations. The longitudinal section of the kidney presented the same characters in the Cortical part. This portion of kidney was considerably enlarged as was also the tubular portion. The contrast between the yellow of the Cortical & the red of tubular was strong. The bladder contained 4 oz of urine; which coagulated as before death. The bladder was normal. There was a calcareous tumour in the round ligament of the Uterus as large as a marble. Uterus healthy, with the exception of a small hydatid —

Remarks —

This case is one of exceeding interest. It is to be regretted that the previous history could not be obtained, as it would, no doubt, have thrown some light on the organic lesions found after death. The lesion of intellect, and the convulsions were the only symptoms, that marked the condition of things within the Encephalon — With regard to the first, it was impossible to say, whether it was natural, or the result of disease. She had only two convulsions in Hospital, each of which occurred during the last two weeks of her life — All the other symptoms, which usually characterise compression & softening of the brain, were absent. The Pneumothorax must

have occurred previously to her admission into the Hospital, as there were no symptoms to indicate its occurrence. This fistulous opening was lined with a perfect membrane, & has evidently been formed some time. The stethoscope (which I regret to say was not used in this case) would, undoubtedly have detected the presence of Pneumothorax. The degeneration of the mucous membrane of the Gastro intestinal canal was sufficiently indicated by diarrhœa, irritability of stomach & obstinate dié rhœa.
As to the nature of the mamillæ in the lining membrane of the stomach, I was disposed to think that they were excrescences & not simple enlargement of the follicles. However obscure the Pathology of Bright's disease may be generally; the enlargement of the kidney, the yellow color & the distinct granulation of the glandular portion in this case, was sufficiently characteristic, not to be overlooked by any one. It gave me pleasure to exhibit the specimen of disease taken from this woman to Dr Baker & to hear his opinion as to the disease of the kidney. If it be possible to get the previous history of this case, I will do so at the earliest opportunity —

Case 11.

Pneumonia, Dropsy, Degeneration of Kidney, Death.

Rich^d. Hawk, 41 years old, came to the Balt^o. Alms House on the 2nd of Oct. 1839, labouring under the following symptoms; Pulse, small, frequent & feeble; Cough distressing, Dyspnea & copious expectoration of a dull whitish muco-purulent matter; Face slightly edematous & of a sallow tinge; Abdomen enlarged & yielding a distinct fluctuation; Lower extremities infiltrated with serum; Pain of a dull character in the renal portion of the back; which he had for considerable time; Skin dry & rather harsh. Percussion yielded a dull sound over the base of the thorax, when in a sitting posture; also over the præcordial region. The respiration in both lungs was rude & tubular, with large crepitations. The lower lobe of the right lung gave Bronchial Respiration & Bronchophony to a very marked degree. His bowels were soluble. Urine scanty, natural in colour & quantity; Caloric & Nitric Acid threw down a precipitate equal to one fourth of the bulk of fluid. He was a native of Balto. City; trade a saddler. He acknowledged he had led a life of constant dissipation & exposure for many years. In June last, he slept in the open air in a state of intoxication, all night; after which he was attacked with Cough, fever & violent pain of side.

He was bled, at the time, repeatedly & received other medical aid, but without any effectual relief. He was dull & stupid & complained of great weakness. For this detail of symptoms He was placed on Pills Scillæ ā ā. grs ij, three times a day; also Infus. Lumbricis. Oj. Bi-Tart. Pot. ℥ij. daily as a drink & Pills Cocoa. grs x at bed times. —

Oct. 3d. Slept a little in the latter part of the night; Countenance anxious; Skin dry, bowels moved frequently; Urine does not coagulate to-day — Medicines as yesterday except the Dover's powder discontinued & Infus Serpentaria with Rhubarb Syp. Scillæ ℥j. Tr. Opii. Camphorat. ℥ss. Decoct. Pol. Lenge substituted. Oct. 4th. Breathes easier, rested better last night; passed 3 pints of urine in the 24 hours, which deposited a red sediment on standing; Coagulates today as at first. For a day or two he seemed to improve, but afterwards grew worse, and died on the 10 of Oct. His urine was repeatedly examined & always coagulated with the exception of the day after his admission. In the last 30 hours of his life he passed none.

Autopsy 30 hours after death.

Body emaciated; muscles without rigidity — some escape of blood, where the integuments of cranium were

divided, also a slight elevation from the surface of the dura-mater. The pulp arachnoid cellular tissue was infiltrated with serum. The convolutions of brain were deep, the prolongations of the pia mater between them was distended with serum. The arachnoid tunic was, perhaps, a little thicker, the opalescent substance of brain pale; ventricles contained no fluid. Thorax. There was about a pint of water in each pleural sac. Both lungs were compressed. The left crepitated slightly; the right did not in any portion. The lower lobe of the right lung was perfectly solid & considerably atrophied. It adhered strongly to the diaphragm. The cut surface presented the granulated appearance of hepatization. The bronchial mucous membrane was dark-red. The heart was increased in substance & very much dilated. The valves were healthy. The mucous coat of stomach was thickened & indurated & of a dark colour. There was no particular morbid appearance in the intestines. The abdomen contained some fluid. The liver was a good specimen of a drunkard's liver. Its surface was smooth & of a mottled yellowish colour. The gall-bladder was filled with dark bile. The right kidney was larger than the left; one weighed 5 & the other 6 oz. The right

kidney presented, in the cortical portion, a yellow homogeneous mass, which occupied a greater space, than is usual in this portion, & seemed to compress the tubular portion. There was not the slightest evidence of granulation. When the left kidney was cut into, it was of a dark appearance & blood oozed freely from the cut surface. The bladder contained 3oz of urine, which coagulated as before; it was healthy. — " —

Case. III.

Dropsy, Granular degeneration of kidneys, Death — Marg.t Franklin, Ae. 32. Born in Balt.: Habit full & lymphatic-sanguine. She states, that her health was good until 5 years ago; that her menstrual function was regularly performed; At this time she suffered from a severe attack of remittent bilious fever. During convalescence, she was exposed, unduly, in consequence of which, she had a fainting attack & Rheumatic fever. From this period, to the time of her death, she never enjoyed, long, tolerable health. She has been in the Alms House more than 12 months. Condition at the time of admission so far as recollected; — Face puffy, & the skin of a waxen hue; Oedema of lower extremities slight; The elbow joint of the right arm was red, swollen & very painful; The

integuments of the forehead were also swollen & have a slate, hay air erysipelatous redness. The throat presented rather an equivocal appearance; the tonsils were enlarged & in the fauces, there were points of ragged ulceration. She feelingly denies, that she has ever incurred the risk of the venereal disease & her denial was borne out by her general good character. Urine not examined at this time.

She was put on a mild mercurial, antiphlogistic & anodyne treatment & after a while, the affections of her forehead & elbow were relieved. In other respects her health was not improved, though she left the hospital, & was capable of doing some light work; about 10 months after her admission (during which time she was constantly troubled with cephalalgia, pains in the back, cough, vomiting, anorexia, diarrhoea & a host of other symptoms). the hydropic effusions increased to such an extent, that she returned to hospital. The diuretic & diaphoretic treatment failed, & in spite of all that could be done, ascites hydrothorax, & universal serous infiltration supervened, & terminated her miserable existence. Her urine was examined about a month before death, & coagulated by heat & nitric acid; it was pale & about natural or rather under the usual quantity.

For the last few days of her life, this secretion was nearly suppressed. On the day of her death, her stomach was very irritable & she threw up bile very frequently.

Autopsy 24 hours after death.—

Surface pale & flabby from the universal distention of the cellular membrane by serous infiltration. Thorax—Each pleura contained a quart of clear serum. They were healthy in appearance, with the exception of some adhesions in the right. The lungs were compressed & yielded only slight crepitus. The bronchial mucous ~~membrane~~ membrane was in a state of chronic inflammation, though not very marked. The heart & its appendages normal. The abdomen contained nearly two gallons of straw coloured serum. The peritoneum looked healthy. The liver weighed 2 lbs; its surface was irregular & tubulated each lobe seeming, originally, to have consisted of many smaller ones. The right lobe was not more than half the size of the left. The whole substance external & internal presented a yellowish aspect. The gall-bladder was filled with healthy bile. The stomach & intestines in normal state. Kidneys of the usual size, weighing 4 oz each; their surfaces were smooth & regular; when the fibrous coat of the kidneys was removed, the surface

was of a yellowish-mottled aspect & was distinctly granular. The testicle was not much changed. Both lungs healthy. There was no urine in the bladder; its coats were thickened. The mucous lining was tough & presented several broad black patches of ecchymosis. The uterus & its appendages seemed not to have attained full development, or to have suffered from atrophy.

The ostium was not as large as a pin's head. The vaginal membrane near the ostium was speckled with minute points of ecchymosis. Head not examined. The periosteum of the foot was thickened & the bone eroded.

Remarks — How long this woman's urine was albuminous, I do not know. It was not examined until a short time before her death. The kidneys as might have been expected, from the protracted duration of the disease, presented the appearance described by Dr. Bright & others, to a marked degree. It is likely the alteration in structure began 5 years ago after the attack of bilious fever.

Case IV

Hypertrophy of Liver & Spleen; absence of cutaneous transpiration for 12 years, with increase of the urinary secretion & albuminuria. Symptoms of chronic cachexia —

Jas. Dalton Æt. 43; native of Virginia; Parents healthy & long lived. He is rather under the medium size & naturally of weak constitution. He says, that his health was good, until he was 20 years old; at this age, while living on James River, near Richmond, he had a severe attack of quotidian ague; for six months & afterwards the tertian for 14 months. He was attended by a medical gentleman of Richmond, without relief. He, at length, went to Richmond, in company with another lad, who also had the ague, & got drunk on beer; his companion died in a week; & neither ever had the ague afterwards. At 22 he had pneumonia, badly, for 3 months, & when he was getting well, he frequently voided bloody urine. Subsequently he was a labourer on one of the Canals; where he was constantly exposed to cold & moisture; having frequently to work in water, up to the middle of his body & as a matter of necessity, he drank freely. His health was soon completely broken

life, & he was compelled to leave his occupation.
He suffered principally from pains in the legs & the lumbar portion of the back. In 1833 he came to the Alms House.
Dr. Power informs me that his liver & spleen were very much enlarged at this period. These viscera were stated in a state of very considerable hypertrophy, when he first came under my notice in 1838. Under the judicious of the gentleman first referred to, these organs were much reduced, by the external & internal use of Mercury & Iodine alternate by Sulphate Quinine.
He says, that he has not sweated for 12 years, & that during the same period he has passed urine in large quantities at frequent intervals. So far as he can recollect, his legs first swelled 4 years ago. For the last three or four years he has been much troubled with Cephalalgia, anorexia, occasional vomiting, tympanites & a constant uneasiness in the lumbar portion of the back. He also had an attack of Dysentery, when it prevailed endemically in the House, during the two last summers. 12 months ago his urine amounted to 8 pts. in 24 hours. It was pale & limpid. It was not tested by reagents, until last fall: & then heat & nitric acid threw down a small precipitate. This was the result whenever it was examined at this period. For a short time this winter, no albumen could be detected

in the urine by any means. I have tested it very often lately & find no difficulty in producing a small coagulum by boiling, Creosote & Corros. Sublimate. Nitric Acid darkens slightly the urine, without any other sensible change. Acetic Acid has no effect. On last Nov, while sitting near the stove, in the evening, he was seized with a convulsion, which lasted 10 minutes & left him insensible for 3 hours. He was relieved by cups to back of neck & a mild purgative. He now frequently has slight convulsive movements of the facial muscles, distorting the features, & rendering his vision & articulation indistinct. This occurs when he reads for a short time, or sits near the stove, or becomes chilled.

Present Condition — Emaciated; slight Oedema of inferior extremities. Skin harsh, & of a dingy, dirty colour. Abdomen prominent & resistent. Percussion dull in both hypochondria, more so in the right. The margin of the liver felt considerably below the ribs. Mind dull & stupid; pain over the forehead, constipation. Bowels move once or twice a day; stools thin & watery. Pulse 72. Radial arteries obliterated. Tongue clean & fissurated. Passes a gallon of urine of deeper colour than formerly in 24 hours. It is slightly impregnated with Albumen. Nitric Acid does not cause a precipitation.

Treatment palliative only. — " —

nearly half of the lungs. Percussion gives a dull sound on the right side of thorax below the mamma.

Bronchophony & Bronchial Respiration, dull, some large crepitation over the same region, very distinct. The respiration of the left lung is a little rude, & the expiration prolonged. The sounds of the heart heard indistinctly. Cardiac region dull. Sensibility high over the abdomen & over the lumbar region. Treatment; Prot. Chloris. Aqua. ℥ij Sal. Antimon. & Potass. Pulv. Opii. āā. gr. ½. 3 times daily; also Liquor Bicarb. Potass. ℥ij daily. Also two cups over the cardia.

Aug. 17th. No material change. Treatment continued & a blister applied to chest. The constitutional influence of the Calomel was now manifested by full & complete salivation. There was no relief of the symptoms. The dropsical effusion increased to a great extent. The extremities were bandaged & afforded him slight relief. The blister was kept discharging by Lavine Ointment. As he rested badly he was ordered to take Pulv. Doveri, gr. xv twice a day; & gr. xv. at bedtime. The Dover's Powder made him sleep better & produced pretty free action of skin. In the last week of his life, he had frequent bloody stools, with severe pain, & the other symptoms of Dysentery. For which he took small & repeated doses of Castor oil & the Opium.

Augt. 24th — Respiration difficult; disposed to sleep constantly. Bowels frequently moved: stools bloody & purulent. Urine as before.
Augt. 29th Profound Coma. involuntary discharges of stools & urine; Death.

Post Mortem Appearances — Subcutaneous cellular tissue enormously distended. The right lung adherent to the pleura costalis: the lower lobe was solid & impermeable. The left lung comparatively healthy — The pericardium contained a little serum. The heart was extensively dilated; its walls being thinner than naturals. The kidneys were large & flabby; there was a large quantity of serum in the abdomen. The colon was extensively ulcerated from one end to the other — There was a large quantity of serum under the Arachnoid; this membrane was thickened, & with the pia-mater could be stripped off. This was the first case of albuminous urine that attracted my attention & as at the time I had no intention of studying diseases of the kidneys particularly; the history & autopsical appearances were not written until after death. I have written only what I distinctly recollected. —

An

Inaugural Dissertation

on

Pleuritis Acute and Chronic

Submitted to the examination of the Provost,

Regents, and Faculty of Physics of the

University of Maryland

For the Degree of Doctor of Medicine

by

John Reynolds

of

Jefferson County

Virginia

February

1840

Pleuritis.

Pleuritis, or inflammation of the pleura, is a disease of the pleura or membrane lining the cavity of the thorax, and enveloping the lungs. Its name is derived from the greek word signifying the pleura.

The pain in the side is in general its most most prominent and is properly pathognomonic of the disease. We are not however in possession of any diagnostic, which will in every case, and under all circumstances, determine with certainty, the exact location of inflammation seated within the cavity of the thorax.

The term pleuritis formerly was used to signify every kind of pain situated within the lungs or its membranes, particularly those of considerable violence, continued and accompanied by acute fever. The true seat of the disease was formerly a subject of much discussion by some, viewed as an inflammation of the pleura

proper, by others as a disease of the lungs, by others as located in the lungs and pleura - the location of the disease at the present is fixed to the membrane from which it derives its name

Pleuritis may be intimately connected with pneumonia, and with difficulty distinguished from it. When the lungs and pleura are simultaneously the seat of active inflammation - it may well be supposed that a difficulty of diagnosis will embarrass the medical attendant, and leave his mind undetermined as to the exact seat of the disease. When however different grades of inflammation exist in the lungs and pleura - the diagnosis is much less difficult, and with more certainty determined -

Pleuritis in its acute form is generally ushered in with symptoms of cold nesp - rigors, chillness, and not unfrequently with a chill in every particular similar and not to be distinguished from an attack of intermitting fever - In other cases

It comes on without precursory symptoms, stealthily and as insidiously as the approach of the incendiary, particularly when it is marked by habits of intemperance — when preceded by a cold stage the prominent symptoms develope themselves almost as soon as the hot stage succeeds — When the cold stage is less decided, the characteristics of the disease are longer in their course of development — sometimes only a few hours only supervening, in other cases several hours elapsing — The violent pricking sensations, in the majority of cases, much more intense in some than in others, now fastens itself to some particular spot — or extends itself over a great portion of one or both sides, changing from place to place making the location of the inflammation — its intensity corresponding with the degree of inflammation — Accompanying the pain in most cases, there is a dry hard cough, or catch in the attempt to inspire. The cough is not an invariable attendant, and in those

cases when about the 9th the attempt to inflate the lungs is more strongly marked, particularly in cases of violent inflammations. The cough at first is dry and hard, or if attended by Sputa, it is glairy and almost colourless. When the lungs become implicated, the character of the sputa changes and in most cases is streaked or dotted with blood, florid in its appearance or colour - as the disease advances the expectoration becomes more profuse - The breathing is hurried and difficult, pulse quick and frequent, skin more hot than natural and dry. The tongue covered with a thick white fur, in the more advanced stages of the disease, sometimes assumes a purplish colour - The urine is diminished in quantity and high tinged in colour. Respiration is performed principally by the diaphragm and abdominal muscles the motion of the ribs being restrained by the patient as much as possible, to avoid the increase of pain occasioned by the expansion of the chest. The pain is increased by an attempt to lie on the affected side -

Various causes have been recited by writers for an attack of this disease, the action of cold upon a body heated from exercise, or confinement in an over heated apartment. Cold and damp air acting on a constitution debilitated from any cause does often produce it and not unfrequently its attacks are not assignable to any particular cause. It may arise from the metastasis of other diseases; as Gout, Rheumatism, and Erysipelas. Velpeau says that those who die of acute diseases, succeeding to surgical operations, or profuse suppurations, generally fall victims to this disease, or to the formation of abscesses more or less numerous in the lungs. Persons of a vigorous constitution and plethoric habit are more subject to attacks than those of a different constitution and less sanguine.

Appearances after death. The pleura is generally found with a reddened surface, or punctuated with small red specks, irregular in shape, approximating each

other very closely, and laid by lymph to occupy the whole thickness of the membrane leaving small intermediate portions of the natural colour. The superficial blood vessels are more enlarged and more distended than in their normal state, accompanying the inflamed state of the pleura. There is always unless the disease be cut short in its very commencement an extravasation of serum on its internal surfaces believed to be the kind of separation proper to serous membranes. This extravasation is supposed by some to commence with the inflammation itself and to consist of two distinct and different fluids. The one semicoagulate, in course termed false membrane, the other more watery and termed serous effusion

Prognosis. Acute pleuritis is not generally a dangerous disease in persons of good constitutions, unimpaired by habits of dissipation or other disease. Of all inflammatory diseases, this is perhaps as certainly controllable by active antiphlogistic

treatment as any other. Its tendency to destroy life is not great, but its indirect action is much to be dreaded, from its tendency to develope a disease from which few recover, viz. pulmonary consumption, particularly in those already debilitated and having lurking in their system a predisposition to phthisis pulmonalis.

Before the introduction of the stethoscope the distinguishing diseases of the chest was a matter requiring much practical skill, and it was not unusual in the earlier days of medical nomenclature to clap them all under one head. The modern improvements in the science have rendered that comparatively easy, which formerly was of all other distinctions the most difficult to make.

The diseases which most closely approximate pleurisy and are with most difficulty distinguished, are pneumonia and bronchitis. The most prominent symptoms in which these diseases differ from each other, are

the character of the cough, expectoration, pain, and pulse. The first perhaps as important as either of the others. In pleuritis it is hard and dry, in pneumonia limited, harsh and making a peculiar rough noise, reiterated deep within the cavity of the chest: in bronchitis it is loose, deep, and diffused. The expectoration in pleuritis does not commence with the inflammation, but supervenes after the disease has existed for some short time, and consists at first of a small portion of frothy transparent mucous. In pneumonia, it is also scanty, and coughed up with difficulty, and in yellowish patches, having streaks of blood mixed with it; it is very tenacious adhering to the vessel like glue when turned bottom upwards. In bronchitis it is more copious, expectorated with more ease, mixing intimately in the vessel and forming a homogeneous mass. The pain is the third point of difference requiring attention. In pleuritis it is acute, lancinating and increased by distension of the chest and depression. the patient avoiding a deep and full inspiration as

well as complete expiration. In pneumonia, it will be acute, and the chest can be expanded and contracted without producing the acute pricking sensation experienced in pleuritis. In bronchitis, there is little if any pain, slightly if at all increased by inspiration or expiration. The pulse connected with other signs will aid in forming a correct diagnosis, and without attention to it the pain would seem to lead to an incorrect opinion, as rheumatic and rheumatic affections of the superficies of the chest often imitate pleuritis in their character. The pulse in pleuritis is quick and tense, and imparting the sensation of a tightened cord. in pneumonia it is depressed and struggling, from the impeded passage of the blood through the lungs. In bronchitis, if accelerated, soft and yielding, easily compressed and entirely different as to the sensation imparted to the finger

The Chronic form of pleuritis may result from the acute, or it may be chronic from its commencement. The anatomical character of the two are materially the

lasses. In chronic cases, the redness of the pleura as exhibited by the lancet after death is of a deeper hue, the serous effusion more abundant, differing in colour, the chronic not being so clear from the presence of small albuminous flocculi. These flocculi are in some cases so abundant, that they give to the effusion the appearance of pus. when they are not sufficiently abundant to produce the puriform appearance, the effusion is generally of a lemon or straw colour. The extravasated fluids are rarely free from odour, frequently it is exceeding offensive, when the disease has existed for a great length of time; it rarely ends in resolution, having a much greater disposition to progress.

In the acute form resolution takes place, the effusion is removed by the process of absorption, and adhesions form between the pleura costalis and pulmonalis, by the false membrane becoming converted into cellular tissue, the appearance being that of a firm outwash, such has been our observation in a majority of cases

which have been examined after death. This serves not only to illustrate the appearances connected with the disease, but shows the extreme frequency of the occurrence of the disease - in almost every case examined after death these bands or attachments of the pleura are found existing to a greater or less extent - clearly showing that a pleuritis had once existed - Chronic pleuritis, as we have already remarked, is in its early stage materially different from the acute, approaching insidiously, wanting the lancinating, pricking pain in the side in the majority of cases, when present, more slight, appearing and disappearing at intervals of longer or shorter duration - Emaciation approaches with more or less rapidity, according to the constitution and habits of the patient or individual -
The digestive apparatus is impaired in its functions, great difficulty of breathing, with an inability to assume the ~~most~~ recumbent posture - Life is sometimes suddenly destroyed by an opening of an ~~opening~~ of abscess into the bronchia, excluding the air - The configuration of the

chest is materially altered, the affected side perceptibly larger. the intercostal spaces elevated, by the accumulation of the fluid in the cavity of the pleura. the increased size depending upon the quantity of effused fluid. the lungs are compressed, and in some instances to so great to so great a degree in the compression that they no longer afford sufficient air into them to sustain life.
The compression generally takes place towards the mediastinum and spine. The following case is set without intent, illustrating some points of the disease, and showing how completely it may be masked, and how difficult is the diagnosis even when all the best lights of the science are made to bear upon it.

Case. M. R. at 20. a woman of pleasure, profligate in every respect, admitted into the Baltimore City and County Alms House May 24th 1839. the complaints when first admitted of pain in the right hypochondrium, aggravated by pressure, with a pain at the top of the right shoulder, extending down the scapula, decubitus

on the right side, slight cough, no dispnoea. Complete
dullness of nearly the whole of the right side, some resis-
tance under the clavicle. Total absence of the respiratory
murmur. Puerile respiration of the right side. Pulse 84,
small and feeble. Tongue coated, but moist, said that
she had been ill only one week. She was cupped on
the right hypochondrium with entire relief of the pain
there. A few days subsequent she was cupped on the
right side of the spine and over the shoulder with
the effect of entirely dispelling the pain in that
region. She was ordered Magn. Hydrog: and aperients
and appeared herself as better from their operation.
Her pulse however continued of the same frequency.
Hectic fever supervened with well marked morning
and evening exacerbations. The cough increased
and copious purulent expectoration came on, she
continued to grow worse and died on the 7th June.

Autopsy. Body very fat. Thorax. The right side of the
thorax was filled with yellowish purulent matter, weighed

with large flakes of lymph amounting to more than half a gallon of fluid. The entire surface of the pleura was covered with an extremely thick coating of false membrane. The lung was compressed into a space extending small at the top of the cavity, and contained no tubercles. There was slight redness of the mucous coat of the bronchia of both lungs. In turning the body over previous to the examination a large quantity of purulent matter flowed through the mouth, evidencing a communication between the cavity of the thorax and the bronchia - The posterior surface of the heart and corresponding pericardium was thickly coated with coagulable lymph. The sac of the pericardium containing a small quantity of pus -

Abdomen. The liver was enlarged to twice its natural size - the peritoneum covering its convex side, especially the right lobe, was covered with a thick layer of coagulable lymph of recent formation. The medullary and cortical substances having a natural appearance.

The stomach exhibited strongly, in case of chronic gastritis. The mucous coat thickened and softened over its entire surface, and of a yellowish gray colour inclining to blue in many parts, with many large patches intensely reddened.

Treatment. The remedies generally used in the acute form of pleuritis are comparatively few and simple, but when properly and judiciously administered, no disease proves more submissive than this. In the treatment of the acute form, bloodletting, the natural enemy of inflammation, holds the most conspicuous place, formerly more so than at present. It is truly said to be the sheet anchor in inflammatory diseases, but like all other good things may be the instrument of evil in the hands of the illiterate and prejudiced. It reduces inflammatory action, and when carried too far, not only reduces that, but the recuperative power of the constitution with the inflammation; particularly in the weak and debilitated, and more especially in delicate females.

In the early stages of the disease free and full bleeding is not only admissible, but in many cases absolutely requisite. As a general rule the first may be carried to syncope if the pulse does not flutter materially before, or the distressing pain is not sooner alleviated, or entirely removed. Most authors recommend that blood should be drawn from a large orifice, and that the patient should be, whilst being drawn in the sitting posture.

In slight attacks the abstraction of blood may be advantageously dispensed with, particularly in delicate females. If the. Leeching and cupping are but secondary and inferior methods for reducing the first grade of pleural inflammation, but when the first has been carried to the extent that prudence dictates, then those latter methods come to our aid with much promise of good. Their action is twofold, that of depletion and counter irritation. When the first general bloodletting

has failed to produce permanent relief a recurrence is again to be had to it. and on the third or fourth time. The pulse, pain, and condition of the patient should always be our guides. for no one can say with any degree of certainty how often it will be necessary to bleed or how much blood should be taken before the inflammatory action is entirely subdued. After the first few bleedings, if it should be again necessary to resort to the general abstraction of blood, it should be done with great caution and sparingly. Cupping and leeching are methods of reducing the circulation which should be resorted to when necessary. the former is perhaps the better of the two. it can be performed any where and at any moment, and by almost any person. Leeches are not attainable in the country. they are scarce and high. often not to be procured, and when obtained. frequently much difficulty arises in inducing them to bite. The bite of the leech too

sometimes leads to unpleasant consequences - on account of the wound they inflict, continuing to bleed - long after they have been taken away - and sometimes giving rise to such a profuse and troublesome hemorrhage as to require the actual cautery or ligature to check it.

The next remedy which presents itself, is the internal administration of Antimonii et Potassæ Tartras. second only to the lancet in this disease, as well as those of inflammations of serous membranes in general - It exerts a power on the heart and arteries which the eye of observation is alone, is willing to admit or believe. Its modus operandi like many other articles of the Materia Medica is not exactly comprehensible - but be it effects and cannot shut our eyes to the fact that it does in some manner control, and lessen inflammation.

Its action is not only to subdue the force of the heart and arteries, but it also has a direct tendency to the skin, producing diaphoresis, the close performance of which

function is one of the most essential in the whole system
This remedy is to be resorted to after a free bleeding
in doses of from one to three grains, every one, two or three
hours, according to the circumstances of the case and
condition and the effect it produces. if it vomits
the dose may be diminished, as well as the interval of
administration, or increased entirely according to circum-
stances. It is also in large and frequent doses, liable
to act upon the bowels, producing sometimes a very
great degree of irritation, manifested by the griping
pain and fever and watery evacuations. To obviate this
effect it may be combined with an anodyne, if the
condition of the patient does not directly contra-
indicate it. When its emetic effect continues with
each dose, its power of controlling inflammation
appears lessened; but when it ceases to vomit after
the first few doses we may more certainly calculate
upon the operation of its sedative powers

Attention should be given to the state of the alimentary

canal. Mild cathartics being generally necessary, there is such a variety in this class of medicines many having equal claims to notice and few if any possessing properties specifically applicable to this disease, that it may be left to the patient himself to make selection from the least nauseous.

Counter irritation next presents itself as one of the most useful means of combating inflammation of the pleura. It is contended by most authors that have written upon inflammation, that there is a point at which it arrives in its course, termed the blistering point. If I understand the idea intended to be conveyed, it is that point in the course of the disease, when the contending forces are nearly if not equally balanced: that is when the force of disease, and the recuperative powers of the system are about equal. As a general rule as to the particular time when counter irritation is admissible, it is advised by best authority to apply it immediately after free bloodletting, carried as far as prudence

dictates. The Counter irritant usually employed is the Cantharides. but in cases when the immediate effect of a vesicle is wished to be produced. the preparation of Ammonia as recommended by Gourilles. are prompt in their action and effect produced analogous to that of the fly. and possessing the advantage of effecting in a few minutes, what requires hours for the fly to accomplish.

The following plan of treatment I have been successfully employed in many cases at the Baltimore City and County Alms House Free and full bloodletting from the arm. a large Cupsaddle immediatly applied to the affected side. Tart. Ant: in one fourth or half grain doses every two hours. Calo: Mur. Hydrg: fifteen grains. combined with five or six grains Antimonialis at bed time. Sulphas Magnes. or Ol: Ricini in the morning if the Calo. Mur. Hydrg. has not had a free cathartic effect. After the cathartic has had the effect desired, a recurrence again to the Tart. Ant. as on the previous day.

The second night twelve gr of P. Doveii at bed time - repeating the tartr. ant. in the morning and the Doves powder at night - At the expiration of the third, fourth, or fifth day the Antimony diminished or discontinued - The Antimony in most cases superseding the use of a second cathartic - and in very few cases was it necessary to resume the lancet - or to apply cups -

The treatment in chronic pleuritis must depend upon the duration of the disease previous to its coming under our care - the natural constitution - habits - employment - and mode of living

It may be that the lancet will be required - Cupping in almost all cases - Counter irritants frequently applied - diaphoretics, diuretics - cathartics - Mercury sometimes carried to moderate ptyalism - Doctor Stokes speaks highly of Iodine and says its effects are sometimes singularly rapid in promoting the absorption of the fluids -

Rest. a restricted diet. but not carried quite so far as starvation either, Nature is not omnipotent, although powerful to combat disease, she must therefore be sustained when she is discovered to be sinking - In the latter stages therefore a generous diet is absolutely necessary - the quantity and quality to be regulated by the practitioner whose eye must never cease to watch over the constitutional energies of the system

An
Inaugural Dissertation
on
Small-Pox
Submitted to the examination of the
Provost Regents and Faculty of Physic
of the
University of Maryland
for
the degree
of
Doctor of Medicine

by
Miles L Donaldson
Baltimore
Maryland

Feby 1840

The origin of this disease dates no further back than the year 640; it being entirely unknown to the Greek & Roman physicians. The manner of its production, though admit-ting of much speculation, must, like all other points of the same character, be for ever an object of fruitless inquiry. It was probably introduced into Europe by the crusaders, where its ravages were peculiarly destructive. It might be supposed that the observation & ingenuity of mankind would have been exerted in the endeavour of discovering some agent capable of counteracting the intense fatality which every where marked its footsteps; such an agent was found, though, as far as we have reason to to believe, it was the result of fortuitous circum-stances. The practice of inoculation, though known to some nations from their earliest traditions was only introduced into the most civilized parts of Europe at the commencement of the 18th century. This prophylactic which consists in the introduction of the matter of the variolous pustule into the system, was

found not only to secure the constitution from a second attack of the disease, but to render those thus inoculated less liable to have it in a severe form. This practice tended greatly to lessen the mortality occasioned by the unrestrained ravages of variola, & was only relinquished for one far more brilliant & successful in its results. I mean, that of vaccination, which depends upon a singular property possessed by a disease incident to the cow & communicable to man, of depriving the system of its susceptibility to the impression of the poison of small-pox. The principle of pathology, which enables us to explain the mode by which the induction of the vaccine disease wards off the small-pox, is, that when the morbific influence of that poison comes within the reach of the system, it meets with a diminished susceptibility, by which the tendency to its production is obviated.

That vaccination is not always antidotal, is owing to the manner in which the vaccine virus is applied, to peculiarity of constitution, & to the system's not being properly schooled for its full

reception.

Small-pox belongs to the class of exanthematous fevers, which are characterized by being specific, that is, having their origin from one cause, & arising from no other. — They are all contagious, & run a regular course, the exanthema being merely a consequence of the fever, & partly a mode by which it is relieved.

Small-pox is generally divided into two kinds, according to the appearance presented by the eruption. When the pustules are separated from each other, it is termed distinct, and when they run into each other, confluent. In the latter, the pustules are more numerous, & the symptoms more dangerous & severe; the distinction, however, does not always hold, as the pustules are sometimes confluent on one part of the body, & distinct on another.

Symptoms, Stage of Invasion.

Nine or fourteen days generally elapse from the time that the contagion has made its impression on the system, till the appearance of the disease. At the end of this time, it is ushered in with

chills, followed by fever, nausea & most always vomiting. The patient complains of lassitude, of a sense of heaviness in the back of the head, pain in the back & loins which soon extends to the extre-mities. There is found at the same time pain in the epigastrium, which is much increased by pres-sure, & a sense of soreness exists in the throat, atten-ded with wheezing respiration and cough. As the disease advances the symptoms become more marked, the tongue is covered with a white fur, except at the edges and point. The stomach rejects every kind of food, & the bowels are gene-rally costive in adults, while children are for the most part affected with diarrhoea. The urine is small in quantity, & when passed off deposits an ash-coloured sediment. At this time the breath & perspirable matter of the patient may be found to possess a peculiar odour, which is easily distin-guishable upon entering the room. As the stage of eruption comes on all the symptoms are increased in violence: the eyes become wa-tery, the tongue & mucous membrane of the throat

assume a brilliant red colour, the face is swollen, & haemorrhage takes place very frequently from the nose. In some cases, a short time previous to the appearance of the eruption itself, a rosea-tous efflorescence covers the face & neck, which has caused the disease to be mistaken for measles.

2nd Stage or Period of Eruption.

The eruption, which makes its appearance about the third day from the commencement of the disease, consists at first of small points or papulae, about the size of a pin's head, & very much like flea-bites, of a red colour & circular form which are at first few in number, but afterwards increase with great rapidity, & at the end of the second day generally complete their number. The febrile symptoms which just before their appearance were aggravated, now abate. At the end of the second or third day from the first appearance of the exanthema, & the fifth or sixth from the commencement of the disease, the eruption begins to undergo a change from the papular to the vesicular form. The tops

of the pimples are now occupied by small vesicles containing a d. of of diaphanous fluid of a serous character, ▸ their bases can be seen to have hardened a little. The fluid in the vesicles increases in quantity as the pustules enlarge. This change in the size of the pustules produces a corresponding effect on the cutaneous surface; the eyelids are so swollen as to close the eye, the face is not to be recognized, and the whole surface of the body is affected in proportion to the number of pustules. About the sixth or seventh day the fluid in the vesicles gradually becomes turbid, & about the ninth has changed from a serous to a purulent nature marking the approach of the stage of Suppuration.
The fever which had remitted upon the appearance of the eruption now returns with greater heat & force. The tongue becomes furred, the pulse is quick & hard, & there ensues a disposition to sleep & coma. The hands & feet become swollen, & the patient is troubled with a profuse salivation, the secretion of which

is attended with pain & hoarseness. The vacuations now are generally liquid, the worst symptom at this point of the disease being the supervention of diarrhœa. These symptoms continue until the pustules commence to dry, which takes place sooner in those which are most ripe, giving to the skin a variegated appearance. When the pustules have arrived at an age of maturity, the coverings of some of them burst, & a portion of the contained fluid oozes out. This matter upon coming in contact with the air dries up forming a dark crust on the top of the pus-tule. Those which remain unbroken contract in size, & their fluid assumes a solid form. The pustules now become hard & dry, and being changed into scabs fall off leaving be-hind them scars corresponding to their size & number. The symptoms & constitutional affections which have been here described as attendant upon small-pox vary greatly in different cases, being in some more severe and violent, in others considerably milder and

ten distinctly marked. The pustules also present a remarkable difference in size, which is dependent chiefly on the severity of the disease. They vary from the size of a buckshot to that of a pea.

The confluent small pox. In the confluent small-pox, all the symptoms are indicative of more severity, & the pains in the back, extremities & epigastrium are more violent than in the distinct variety. The fever most always assumes a typhoid form, while in the distinct variety it is generally of an inflammatory character. The eruption in the confluent form besides appearing with greater rapidity is developed every where at once, & as soon as the papulae exhibit themselves they may be observed to touch each other upon their bases. The tongue is covered with a black fur, showing evidently a lower form of fever than in the distinct variety, where the tongue is generally at the commencement strikingly red & indicates a more active degree of fever.

There is another variety of small-pox called the crystalline or watery, which has been noticed by Sydenham as being so peculiar-
-ly fatal. In this variety suppuration does not take place in the pustules, as the fluid in the vesi-
-cles scarcely undergoes any change: consequent-
-ly the exanthema is not perfected, and that inflammation which ought to have relieved itself by a regular eruption on the surface, & which the vital powers have not sufficient force to accomplish owing to the fever's always possessing a typhoid character, is transplan-
-ted to the internal organs, particularly the brain, as the post-mortem appearances al-
-ways exhibit congestion of that organ.
Prognosis. The fatality of small-pox is always in proportion to its severity, & the state of the constitution on which it makes its at-
-tack. The distinct form is far less dangerous than the confluent. Death sometimes takes place so early as the fifth day, though the se-
-condary or suppurative fever constitutes the

most critical period of the disease. Our prognosis is to be drawn from the appearance of the eruption, the period at which the natural changes take place in the pustule, & the general attending circumstances. When the pustules are red & slow & late in their progress, & suppurate perfectly, we are led to apprehend a favourable termination; on the contrary, when they are livid and flat, & disposed to be haemorrhagic, & dry up without an incrustation of pus in their surface, it is a sign of weakness & inability on the part of the system to produce a perfect exanthema, & augurs badly for the patient. Females when attacked by small-pox during the period of pregnancy, are frequently liable to abortion; & fatal results are always to be expected from its occurrence in patients affected with syphilis, a fact which strongly inculcates the danger to be apprehended from inoculating them while labouring under that disease.

Treatment. The old method of treating small-

-poy by stimulants is to be reprehended for ma-
-ny reasons, & is evidently based upon a false
pathology. Stimulants were administered to a
great extent under the view that the blood
was completely putrified, and that unless
it was relieved of its impurities at once by indu-
-cing a rapid & copious crop of pustules, the
patient would inevitably succumb. Hastening
the eruption only increases the fever by ad-
-ding a new source of irritation, & would be
apt were a typhoid state to ensue to trans-
-plant it to the internal organs; the expe-
-rience of many teaches us that a slow &
gradual eruption is indicative of the dis-
-ease taking a more natural & favorable
course. The decided marks of inflamma-
-tion evidenced by the state of the tongue,
the hard quick pulse, & the pain in the loins
& epigastrium point out the necessity of anti-
-phlogistic treatment. By the use of the lan-
-cet we create a less copious crop of pustules,
and at the same time subdue the fever. Blee-

-ding if pushed to too great an extent, however, may cause the eruption to retrocede, & thus produce internal congestions. The diarrhoea which attends the suppurative fever is not only the result of the want of bleeding & the pro-per use of purgatives in the commencement of the disease, but is induced by the deep sympathy existing between the skin & mucous membrane of the intestines; the irritation excited in the former by the presence and suppuration of so many pustules leads to depraved secretions on the part of the latter. Cathartics hereby have an important place in the treatment. Great benefit is to be derived from keeping the patient in a dark room, though the mode by which the exclusion of light prevents scars from occurring upon the desiccation of the pustules is not very evident. When the diar--rhoea is troublesome, particularly in the typ-hoid form, it should be gently checked by the more moderate astringents, while to-nics & stimulants are necessary to support the system.

An Inaugural Dissertation on Scarlatina.

Submited to the examination of The Provost, Regents, and Medical Faculty, of the University of Maryland. For the degree of M.D.

By John Engle Moler.
Of
Jefferson County,
Virginia.

February — 1840.

To

A. Potter M.D.

and

S. G. Baker M.D.

This Thesis is dedicated as a testimony

of respect, by the

Author.

Scarlet Fever.

"Pulsus et vita pari ambulant passu."

The study and practice of medicine embrace various and important considerations. They require the highest mental endowments, while they impose the most awful responsibilities. The brightest geniuses have engaged in this respectable art; but the sun of medical science is yet in its horizon, notwithstanding the trophies that have been laid at the altar in the temple of Esculapius. After the physician has made his noblest efforts, by the most judicious application of his remedial agents, yet his fair prospects will too often be blasted, and his hopes disappointed; for cases of opprobrium medicorum will still continue to occur even in youthful life, until some new remedy shall be discovered, or some new application shall be made of our old ones. Shall that pious fanaticism which ascribes every thing to supernatural agencies, and nothing to natural causes, trammel the feet and manacle the hands of the physician, while pestilence walketh in darkness? No: the oceans and the continents; the moun-

tains and the valleys, still furnish us with herbs and minerals; fruits and flowers, possessed of medical virtues; and by their proper application, tend either directly or indirectly, to mitigate human suffering, and to prolong the life of man.

From the researches of some of our most able writers on this subject, the disease seems to have reached us from the East, and to be of comparatively recent origin.

The three varieties, into which our latest authors have divided this disease, namely, Scarlatina Simplex, Scarlatina anginosa, and Scarlatina Maligna, are identically the same disease, differing only in degree of virulence.

Scarlatina Simplex.

This complaint is more prevalent in winter and spring, than in the summer or autumnal months; and attacks children in preference to those of a more advanced age.

Scarlatina Simplex, has been noticed by Sydenham and De Gorter, without any inflammation

of the internal fauces; and to terminate spontaneously. But inflammation of the internal fauces, may be considered as an essential characteristic of the disease. The premonitory symptoms of fever in general usher in this disease. After an indefinite period varying from one, to three or four days, the patient is seized with slight chilly; fullness of the head, and lassitude, pains in the head, loins, and lower extremeties; to which succeed great prostration of strength, and nausea, or vomiting; attended by a hot and dry skin, and frequent and quick pulse. In about thirty six hours after the fever makes its appearance, a profuse scarlet eruption comes out, ~~first~~ on the breast, arms, face, neck, trunk and extremeties in succession; and finally spreads with rapidity over the surface of the mouth, nostrils and fauces; the latter of which tumefy, and not unfrequently in the more malignant varieties ulcerate. The rash gives a diffusing blush to the skin, which is represented as resembling the shell of a boiled lobster. "In some cases", says Dr Armstrong, it is uniformly diffused over the whole surface of the body; in others it appears only in large irregular blotches, leaving the intermediate

portions of skin of the natural color. ~~Ist~~ or soon after the accession of the fever, the fauces become sore and tumefy, with some difficulty of deglutition; and in some cases the voice is remarkably changed. The tongue is covered with thick white fur, with red edges; the face presents a puffed appearance; the skin is very hot and dry; the pulse is frequent and quick, and sometimes tense and vigorous. The patient has little or no inclination to take food or drink. The fever, as in many other febrile diseases, remits in the morning, and gradually increases through the day, and reaches its highest point about bed time, when it sometimes happens, that a slight delirium occurs. The stage of excitement frequently terminates on the second or third day, from the first appearance of the fever; but occasionally not until the fourth or fifth day; when the stage of collapse supervenes, the fever disappears; the pulse becomes slower and softer; and the skin relaxed. About the time that the stage of excitement gives away, the rash begins to recede, and entirely disappears about the seventh day; about which time desquamation commences. This variety sometimes suddenly passes into the second, or that denominated Scarlatina Anginosa.

Scarlatina Anginosa.

In Scarlatina anginosa, the fever and inflammation of the fauces, are much more violent than in the mild form just described. The Scarlatina Anginosa embraces all the symptoms of the simple variety, in a more aggravated form. It is ushered in with considerable headache; and the patient also complains of great praecordial oppression; nausea and vomiting harass the patient. The eruption comes out about the third day, in very irregular blotches; at, or about the same time redness and swelling make their appearance in the internal fauces; and the muscles of the neck and lower jaw become stiff, so that the patient cannot move those parts without pain. Inflammation frequently makes its appearance in the fauces, tonsils, and soft palate before the accession of the fever. The voice acquires a considerable degree of hoarseness; the patient complains of a difficulty of swallowing food or drink; there is considerable difficulty of breathing, attended with a disagreeable sensation of constriction in the throat. The pulse acquires greater frequency in this, than in the former variety; but is not so vigorous tense or full. The

fever runs very high, and soon reaches its acme; there is intense heat of the surface; and the patient is tormented with an unquenchable thirst; tongue dry, and very red along the edges. The alvine evacuations are very black and bilious. The patient complains of headache, and is very restless and languid, and is extremely prostrated throughout the entire course of the disease. The febrile symptoms increase in violence as the evening approaches, giving rise to a species of delirium, in which the patient talks to himself if left alone, or in the dark. The rash frequently recedes the day after its appearance, and reappears at uncertain intervals, and in this way protracts the decline of the disease. In consequence of the sudden recession of the efflorescence to the internal parts, dangerous and even fatal congestions might be the consequence. When the fever begins to decline, (about the fourth or fifth day) the tonsils and palate seldom ulcerate, and the swelling and inflammation of these parts pass off with the fever: but when the fever is unusually violent, or, is protracted beyond three or four days, ulceration and sloughing are the consequence. As the arterial excitement declines, the ulcers throw off their sloughs, and generally heal without much difficulty. Sometimes instead of cicatrizing

kindly, they put on a malignant appearance, the sloughing extends, and destroys the neighboring parts; the glands of the neck become enlarged and painful, and occasionally suppurate. In children, swelling of the parotid gland is of common occurrence, but suppuration rarely happens.

The inflammation sometimes extends to the trachea and bronchia, and the patient dies under symptoms resembling those of acute bronchitis. In some cases there is inflammation of the brain and its membranes, in which case, the patient dies with symptoms resembling those of phrenitis; (about the fourteenth day.) Sometimes thoracic and abdominal inflammations supervene; at first slight, but finally become very distressing; and to render the patients misery complete, he is tormented with vomiting, and acrid eructations. The abdomen becomes distended with flatus, and the patient becomes more restless, and his system begins to sink under the disease. In the course of six or ten days, the pain and soreness of the belly abate or entirely disappear; the pulse is so quick that it is with difficulty that it can be counted; the breathing becomes more anxious, and the vomiting more harassing to the patient. The surface becomes covered with a cold clammy sweat,

followed by an entire prostration of the whole system and the patient dies exhausted.

Scarlatina Maligna.

This is the most aggravated form of scarlet fever, and soon betrays its malignant character. The morbid virus appears to be particularly directed to the throat; though occasionally the Liver, Lungs, or stomach is the part principally affected.

Dr Armstrong describes three subvarieties of Scarlatina Maligna - viz. the Inflammatory, the Congestive, and the mixed. The first of these modifications resembles the Scarlatina anginosa for a day or two after its commencement; but it soon betrays its malignant character. It assumes the highest grade of inflammation and excitement to which the system can be subjected. It usually comes on with shivering; great dejection of spirits; more severe pain in the head and back than in the former varieties; the patient complaining of a dizziness or swimming of the head, and much general oppression; nausea and vomiting harass the patient from the time of attack. Sensations of chillness and heat alternate each other, until the stage of excitement be fully

developed, when the efflorescence makes its appearance as in the preceding varieties. The efflorescence makes its appearance at uncertain intervals, varying from the second to the fourth day of excitement. Arterial excitement runs high. Fauces much more inflamed than in the preceding varieties; sloughs form in the throat at an early period of the disease; at first of a white, and finally change to a dark brown, or black color. In some very aggravated cases, the disease ends mortally in four or five days. Delirium comes on at an early period; often succeeded by an imperfect stupor, &c. In some instances the abdomen is principally affected; pain, soreness and tension of the belly is complained of; breathing laborious short and quick; pulse very quick and counted with difficulty. In other cases the pulmonary system seems to be the part principally affected. But whatever part may be affected the stage of collapse soon supervenes; the powers of the system give way; the pulse looses its strength and becomes more vapory; the skin becomes relaxed; the tongue, palate and tonsils acquire a dark color, and the disease assumes a more putrid character; convulsions, vomiting, and sometimes even suffocation take place,

according to the organs principally affected, and put an end to the patients sufferings. In case the patient recovers, the disease does not put on the malignant character above described. Armstrong asserts, recovery is sometimes protracted even for several months.

The Irregular form is a mixture of the highly inflammatory, just described, and the regular congestive, or typhus variety. It is ushered in much like the preceding forms; but in the forming stage, the rigors, headache, nausea and languor are more protracted; while the stage of excitement is shorter, and less fully developed. The hands and feet become cold; and the patient complains of alternate sensations of heat and cold. The anginose affection is usually manifested in the course of a few days. The eruption is much less regular in its diffusion over the surface of the body, than in the preceding varieties, and it is of a lighter color. The eruption sometimes disappears, and returns at uncertain intervals. The morbid poison overwhelms the brain and nervous system, at an early period of the disease. The alvine evacuations are unnatural and of a disagreeable odour. In consequence of the imperfect excitement, the pulse does not acquire much firmness, or fullness in the second stage.

The gangrenous ulceration in the throat spreads rapidly, and blood issues from the gums and nose. It is frequently protracted, (when allowed to take its own course,) to the end of the third week. In children the suffering is more frequently from congestion of the liver, Spleen, Lungs, Stomach and intestines, than in the preceding varieties. This modification is still more fatal than the preceding forms.

In the Regular Congestive, Or Typhus form, the vital functions are so much oppressed in the first stage, with internal venous congestions, that reaction cannot take place. The fever a typhus from the beginning of the disease. It for the most part makes its attack suddenly; the patients face puts on a cadaverous appearance, and he complains of nausea, cephalaea, and great oppression at the pit of the stomach. The breathing is quick and short, or slow and laborious. The eruption occasionally recedes and does not return again. The face is pale and the eyes dull; and he finally becomes delirious or stupid, under which the patient dies. From the accession of the disease and through its whole course, the pulse is slow, irregular and feeble; though in some cases there is a very slight degree of reaction, then the pulse is quicker and stronger

for a time, but it soon becomes weak and irregular. At first the tongue is covered with a thin white fur, but as the disease advances, the tongue becomes rough, and changes to a brown color. The bowels are costive from the beginning, but towards the termination of fatal cases there is diarrhea. This modification of Scarlatina Maligna frequently terminates fatally in the course of two, three, or four days. The eruption through the whole course of the disease is of a pale purple, or copperish hue; and sometimes recedes without ever appearing again. Towards the termination of fatal cases, blood oozes from the gums or nostrils; and the patient passes blood from the bowels, or bladder, or from both; ink colored or gangrenous spots are occasionally observed on the skin. In this modification, the affection of the throat is rarely very violent. Congestions of the Lungs, Liver, Splen and brain, are of frequent occurrence, and the patient dies of visceral disorganization. In the Stage of oppression, nature employs arterial excitement, as a means to relieve herself of venous congestion, and thereby relieves the right side of the heart, and large venous trunks of the superincumbent load of venous blood under which the systems struggles. Simple excitement consists in an increased action of the heart and arteries,

with an increase of heat, and a regular distribution of blood throughout the system.

Treatment of Scarlatina Simplex.

There is none of the exanthemata more difficult to treat with success, than Scarlet fever. In some cases the patient scarcely complains, and the parents of the child affected, are not aware that it has the disease; in another case, it puts on the most inflammatory type; and in a third case, the fever is a typhus; and has to be treated accordingly. The grade and character are important considerations in the treatment.

This form of scarlet fever though mild, undoubtedly requires medical attention. As no one can tell with certainty, in the initial stage, what will be the character of the disease, it should be strictly attended to: no one should delay the combat with an enemy until he has grown formidable; for the longer the disease is suffered to prey upon the system, the more troublesome will it be to eradicate.

When the face is pale, and the patient complains of cephalalgia, nausea, and lapitude; a brisk cathartic should

phia administered, and followed by an antimonial emetic and the warm bath. By this practice we equalize the circulation, and render the subsequent course of the disease milder and much more manageable. The heat of the skin and quickness of the pulse, may be promptly reduced by the administration of an emeto-cathartic, composed of tartar emetic and sulphate of magnesia, or the pulvis antimonialis with hydrargyri submurias, which acts briskly as an emetic and cathartic. When the head or any other organ of vital importance to the animal economy, seems to be principally affected; a brisk cathartic should be administered, and the patient put into a warm bath, containing a large quantity of common table-salt; and a few leeches should be applied in the neighborhood of the affected part; or a small quantity of blood should be taken from the arm. This practice tends in no inconsiderable degree to moderate the subsequent reaction. When the arterial reaction is fully established; an emetic of Ipecacuanha or antimony, should be administered; or a mercurial cathartic, followed by some one of the neutral salts. Phlebotomy may be had recourse to, in case there is much pain and fullness of the head; and mild diaphoretics, such as, spiritus mindereri, sweet spirits of nitre, or nitrous powders should be

administered pro re nata. In case arterial excitement runs high, it should be moderated by cathartics; tepid affusions, cooling drinks, such as, lemon-ade, muriatic acid largely diluted with water, should be taken freely during the affusions; rest and cool air should be admitted into the patient's room if it be warm weather. A gargle composed of sage-tea with alum, or borax, sweetened with honey, should be used frequently through the course of the day, in case the throat becomes sore. A strict antiphlogistic diet should be enjoined; and the patient should be kept within doors, for several days after all pain and inflammations have subsided.

Treatment of Scarlatina Anginosa.

This variety of Scarlatina requires a decidedly more energetic course of treatment. Strong antiphlogistic remedies are required.

One naturally concludes that emetics are highly valuable remedial agents in this as well as, in the other varieties of

Scarlatina. The earlier they are had recourse to, the more advantageous will be their effects. Given in the first stage, or at the beginning of the stage of excitement, they will frequently moderate the subsequent course of the disease; and not unfrequently, cut short the whole train of morbid actions. Their efficacy is confined to the early part of the disease.

Of all the various means, calculated to reduce arterial excitement, the cold affusion is the most prompt and beneficial in its effects. Cold water moderates the action of the heart and arteries, reduces the burning heat of the skin; and induces a gentle diaphoresis, and refreshing sleep. As soon as the stage of excitement has commenced, the patient should be immersed in cold water; or what is better, cold water should be freely dashed on the patient; and repeated for the first twenty-four hours, as often as, the heat of the surface and pulse rise above the natural standard. The body and extremities should be frequently sponged with cold water. In general cold water should not be used after the third day of excitement.

This potent agent is often sufficient to arrest the disease of itself; but no one should trust, to it alone, when he has

other valuable remedies. The efficacy of cold ablutions, in general, will be much augmented, by the administration of mild cathartics during the day. Purgatives may act beneficially by the removal of irritating matters from the alimentary canal; by exciting intestinal exhalation, and by reducing the action of the heart and arteries.

Little can be said with regard to the employment of diaphoretics. The temperature of the body is too high to admit of diaphoresis; but it may be reduced by cold ablutions.

In case visceral inflammations supervene, and the stage of collapse is not near at hand, it would be advisable to draw blood either generally or locally, or both; according to circumstances. Should symptoms of cerebral inflammation supervene, the patients head should be shaved, and kept elevated; cold water should be applied to the head, by means of towels; and blood drawn, according to the state of the pulse; an active cathartic administered; and blisters applied to the nape of the neck, or cups to the temples; in addition these, warm fomentations, or sinapisms should be applied to the feet. In case any other visceral inflammation,

attended with collapse, should arise, Dr Eberle recommends calomel and opium internally; and dry cupping, and large emolient poultices to be applied to the affected part.

In case the eruption should recede, or is tardy in its appearance, recourse should be had to the warm bath, and some mild stimulating diaphoretic should be administered. In the eruptive stage of Scarlet fever, where the rash has made its appearance, or is appearing, and recedes, Professor S. G. Baker warns us against the use of purgatives, the correctness of which, I readily percieve. In mild cases Spirits of turpentine, or soluble liniment, with or without laudanum, should be applied to the throat: in more intractable cases, blisters should be applied, as soon as, the anginose affection is manifested.

Gargles should be used to cleanse the ulcers in the throat: a decoction of peruvian-bark and tincture of myrrh; or barley-water acidulated with sulphuric, or muriatic acid sweetened with honey; or an infusion of cayenne pepper, alum, or borax dissolved in sage-tea; either of which may be used advantageously.

Treatment of Scarlatina Maligna.

The initial stage of this variety of fever presents us with the same, or nearly the same symptoms, as the other varieties; and therefore should in its incipiency be treated in a like manner.

The mode of treatment which I would suggest is as follows, viz. at an early period of the disease to evacuate the stomach and bowels, by the aid of emetics and mercurial purgatives. Cold affusions if resorted to during the stage of excitement, may prove highly beneficial. But in case the above treatment does not effectually reduce the fever, the lancet should be resorted to. Dr Armstrong observes, in his very valuable discourse on fevers, that, "whenever the lancet is resorted to, we should always bleed copiously in the first instance". In case we fail in taking a sufficient quantity of blood, at the first bleeding, the mistake cannot afterwards be rectified; though we should draw double the quantity required in the first instance.

When the stage of collapse ensues the system must be supported by stimulants; such

as wine-whey, ammonia, infusion of serpentaria, yellow-bark; milk-diet, rest, and cool air. In cases of alarming prostration, powerful stimulants should be administered, in frequently repeated doses. In case the brain is not affected, we should use instead of the above, carbonate of ammonia, wine, camphor and opium; or infusion of serpentaria, with large doses of elixir of vitriol, quinine and capsicum. A gargle composed of alum, borax, and sage-tea, sweetened with honey, has been found of signal service. The black-wash, and pyroligneous acid have also been used with success. Friction applied to the throat, with camphorated spirits, turpentine, or a mixture of both, is highly recommended. I am convinced from experience, that the above receipt is productive of good effects. The antiphlogistic regimen, should be enjoined during the stage of excitement; but a mild and nourishing diet should be allowed, as soon as the stage of collapse supervenes. In cases where there is much debility present, the patient should take an infusion of serpentaria, columba, gentian, or calamus-aromaticus, with a small quantity of sulphuric acid.

An.
Inaugural Dissertation
on.
The Diseases of the Frontal Sinuses.
Submitted
to the examination
of
The Provost. Regents & Medical Faculty.
of the.
University of Maryland
for the degree of M. D.
by.
Wm Taylor Blendinen.
Baltimore City
Maryland.

February 1840—

"Homines ad Deos nullâ re propius
accedunt, quam salutem hominibus dando."

Cicero

To the Professors of the Regents Faculty of Physic,
in the
University of Maryland.

Gentlemen,

Urged by those feelings of respect and esteem, which your professional acumen and benevolence have called forth, I have ventured to dedicate to you, the following inaugural dissertation; And Gentlemen, permit me at this time to utter those congratulations which if they have not kept to the lips have been treasured in the heart; and to hope, that as you are now restored to your ancient privileges within your Literary Home, your University may soon rear its head to the Heavens; (not Babel like to again be overthrown by confusion.)

And lest, that your useful lives may be prolonged; and, that Happiness may walk hand in hand with you through Life's meanderings, will be the prayer of your Pupil and Friend,

The Author.

History.

Since the our first mother sat of
"the fruit
Of that forbidden tree, whose mortal taste
Brought Death into the world and all our wo",
Disease has staltred abroad; and Death
has mown down with his icy sickle, the
silver haired, and the joyous youth; the
fair, and the low: the matron, and the
bright eyed daughter despite the untiring
efforts of the zealous members of the Hea=
=ling Art.

"and till one greater Man
Restore us, and regain the blissful seat"

such will often be the mortifying result of
our labors: but by the permission of a Kind
Providence our fellow beings frequently owe
their lives to the skill of the Physician;
hence the importance of treasuring up the
experimental knowledge of our forefathers,
true it is, that as the light of Science has been
approaching more and more to the perfect day,
the progress of improvement in Medicine

has been such, that we contemplate with pity the delusions of those, whose medicines were rendered efficacious by the mummeries of the Black Art, and whose Faith only made them whole: but although gigantic strides have been taken, we are forced to confess, that much is yet to be gained in the march adown the long vista of futurity.

Before giving a history of the very frequent diseases of the Frontal Sinuses, it will be proper to premise an anatomical description.— Their anatomy has engaged the attention of the most eminent writers, but I have been unable to find a more lucid description, than that contained in a compilation by Dr Horner of the works of the late Dr C Wispar —

Anteriorly, the cavities of the nostrils are formed by the cartilaginous appendages to the Superior Maxillary and the Nasal Bones: In the posterior nares, we have the Superior Maxillary, the Palatine and the Sphenoid Bones forming the boundary

walls. The partition being the nasal plate of the Ethmoid Bone, lined out by the Vomer, and by Cartilages: at the superior portion these cavities are roofed by the sieve like plate of the Ethmoid Bone, upon these walls is hung a tapestry, or lining pituitary membrane, which having been described by Schneider has been called Schneiderian Membrane: this commences upon the upper part of the Septum Narium, and sealing around the threads of the Olfactory nerve, which passes through the Cribriform Plate of the Ethmoid Bone; as it passes over to the outer side of the Cavity; it is next reflected into the superior meatus of the nose, into which, the duct of the Sphenoid Cells empties, thence, passing over the the turbinated Bone it again contains the next or middle meatus, in which, we find the Foramen communicating with the Antrum Highmorianum; and more anterior and superior, the duct

from the Frontal Cavities is apparent:
below the next turbinated bone, over which
it also passes, we have it spreading over
the inferior meatus, in which, the Canal from
the Lachrymal Sac enters, the different
sinuses to which these orifices lead, have
been also examined by able Physiologists.
The Frontal sinuses are formed by the
separation of the two tables of the Frontal
Bone, the outer of which, we find recedes
farthest from a perpendicular. frequent
ly, there is a communication between the
two cavities; but this is not always the
case: All the other cells, it may be
said, are formed in like manner, by the
separation of the interior of the Bones.
their utility has been the subject of
controversy; the great Desault denying
that they can be useful in giving a
surface for the expansion of the nerves;
or, that they are useful in smelling, as
no stream of air can pass through them;
to prove which, he instituted his very.

beautiful experiment upon the man who was wounded, so that, the Frontal sinuses were laid open, and to the orifice of whose wound he held a cup containing some highly aromatic liquor; and found that no odour whatsoever was perceived -- Magendie on the other hand, implies that such is their use; for he says "that a considerable extent of these sinuses is always found in those persons who possess the sense of smell to a great perfection;" their most obvious use appears to me to be, for modulating the voice:

We find these sinuses lined by a very delicate membrane, extending from the nares, into their cavities; and the peculiar province of which, appears to be, to secrete a peculiar mucus for coating the delicate filaments of the olfactory nerves; and protecting them from injury by foreign bodies, inhaled into the nostrils. the importance of this defence is insisted upon by Magendie; for he observes, "that "it is necessary that the mucus should

preserve the same physical properties: as every time they change, the sense of smell is either lost, or, essentially impaired.

The nostrils answer well both for a surface upon which the nerves may be spread, or, displayed; and as a passage, or, funnel for the transmission of air into the trachea. that it is necessary for air to pass currently through the nostrils, in order that the sense of smell may be enjoyed, is proven by the fact, that those subjects into whose Trachea as the air is admitted by a wound, do not possess any ability to distinguish odours: and hence the great importance of preserving the integrity of this secreting membrane, so that too much mucus may not be suffered to exude, and the nares become plugged up, and obstruct the passage of air; or that too little may not be secreted; and the Schneidrian membrane deprived of that covering, which, Nature has intended to be supplied to it, in a moderate degree

The Predisposing Causes.

are. First. That peculiar habit of the system which has been called Scrofulous. in which condition, the circulation in the capillaries does not appear to go on. regularly and actively: but are often observed congested: and, in which we find a debilitated state of the remote members: the glands and joints are most commonly the seat of scrofulous diseases: but any organs remote from the great Centre of sanguineous action are obnoxious to this chronic inflamation. For this habit of Body the greatest pains have been taken to assign causes: a great number of which, Dr Parr thinks are entirely groundless and nonsensical — But, that such a taint does often exist; and that it is hereditary; and lies dormant in the system waiting only for a stimulus to arouse it, and cause it to strike its venom into some weakened point. is a matter of daily experience in the practice

secondly. Any cause which creates general debility and atony: protracted Fevers. Exposure to cold. damp atmosphere. &c. &c.

It may be expected that I will class Syphilis as one of the predisposing causes, but as we generally find that there is an ~~[illegible]~~ exfoliation of Bones: viz. Ossa Spongiosa, whenever Syphilis reaches this dreadful extent. and as I do not think such to be necessary in order to constitute a genuine Dyscrasia; I will go on to consider it as alone connected with scrofulous diseases —

The exciting Causes.

May be. A protracted Fever; after which the system is left without tone, and is liable to this degeneracy. Cold frequently produces it — It often follows Measles &c. and it may be caused by any foreign articles which ~~[illegible]~~ produce irritation and consequent suppuration.

Symptoms.

As the capillaries carry on the circulation alone in these sinuses, we find them quite as liable, as the glands, and the joints, to the invads of that Proteau cause, scrofula. and we generally find Ozena as attacking those persons who have the same distinguishing marks, which we find in that disease; light hair. swelled upper lip, florid complexion, thin skin, &c. &c. this is to be expected; as Ozena is generally one of the forms which scrofula assumes.

When Ozena has continued for some time, the Schneiderian membrane becomes relaxed; and suffers to exude from its surface, a quantity of that mucus, which, (as has been before said,) Nature intended should be poured out in a moderate quantity, to sheild the delicate ramifications of the olfactory nerves - The secretion, as seems to be a rule in the Animal economy, is carried on

in the exacerbation of the exudation, and after it has remained for some time in the cells it becomes putrid, this is very common in ozænic bronchitis. But in the more aggravated form of Ozæna, we have not only a relaxed state of the Schneidian membrane, but an absolute suppuration, or ulceration, and purulent discharges. these discharges when deflucted: instead of being of the colour, consistency and odour of the nasal mucus, it is so altered as to appear dark sanious, foetid & viscid; and as it has remained some time contiguous to the turbinated Bones it is often bloom from the anterior nares, moulded after their form; and presenting on that surface, which was next to these bones. ~~[illegible]~~ this greenish, purulent matter, of which we have just spoken; whilst that face presenting to the septum narium is dried & hardened by the air,

Together with these local discharges, we have other symptoms, namely, extreme nervous excitability of the contiguous organs; forming a decided contrast with the obtuseness of the olfactory nerves, for this obtuseness Dr Good assigns as a reason, "that by the inflammation which is so extremely chronic the membranes are thickened;" this is probably one cause, but the great collection of the matter is certainly another strong reason, occluding the air, and sealing the filaments of the nerves; and preventing the odorous particles from having access to them. — Head ache is symptomatic and it generally is found to be seated in the Anterior Cerebrum. Also a numbness over the eyes; giving a sensation of weight, sometimes from the collection of matter amounting to an oppressive feeling of suffocation; and the sufferer has an incessant desire to rid himself

Together with these local discharges, we have other symptoms, namely, extreme nervous excitability of the contiguous organs; forming a decided contrast with the obtuseness of the olfactory nerves, for this obtuseness Dr Good assigns as a reason, "that by the inflammation which is so extremely chronic the membranes are thickened;" this is probably one cause, but the great ~~xxxx~~ collection of the matter is certainly another strong reason, occluding the air, and sealing the filaments of the nerves; and preventing the odorous particles from having access to them. — Head ache is symptomatic and it generally is found to be seated in the anterior Cerebrum. Also a numbness over the eyes; giving a sensation of weight, sometimes from the collection of matter amounting to an oppressive feeling of suffocation; and the sufferer has an incessant desire to rid himself

of this incubus - by forcing the air out through the external Nares. The eyes are often suffused with moisture, as the duct to the Lachrymal Sac is occluded: When the Patient stoops dizziness is felt, and a congestion of the vessels too heavily taxed continues the giddiness & headache; When the head reclines backwards the matter is frequently swallowed, and produces nausea of the stomach. Oftentimes dyspeptic symptoms attend, and the sympathy of the head and the stomach aggravates the intensity of the pain, but does not very materially, if any, increase the discharge. The ears are often painful; and a disagreeable sensation of roaring (as the patient describes it) is felt.

The voice is rendered heavy & monotonous. The throat is often somewhat sore from the constant efforts to raise the matter which runs down the posterior nares.

From the debilitated state of the parts, the velum Pendulum palati is even bend & depend sub; and gives additional uneasiness in the throat: All the foregoing symptoms are aggravated by the slightest alterations in the temperature of the weather, and so oppressive is the disease at times, that I have known Patients declare that existence was intolerable —

It is possible, that a caries of the Bones might take place in this disease, as well as, in other scrofulous affections; but unless combined with Syphilis this is not very often the case.

I believe, that I have succeeded in detailing the most prominent if not all of the local, as well as the general symptoms of the disease; and shall now proceed to give a general detail of the two most common diseases, with which it might be confounded,

The first of the diseases, with which this peculiar disease of the Frontal Sinuses might possibly be confounded; is that Syphilitic ulceration of the bones of the nose very often the result of badly treated Syphilis: but as we very generally have a clue to the labyrinth. either by finding other ulcers, buboes &c. or, by the confession of the patient-himself, or, even if he denies the fact; and we should be so fortunate as to possess the acute discernment in discovering Syphilitic Caries, which our venerable Professor of Practice is said to possess: we need have but little apprehension of being deceived.
The second is a disease of the Antrum Highmorianum. which would be very likely to be mistaken for Ozena, but in this disease, the pain is generally felt about the roots of the teeth at first; subsequently, extending up the nostrils; and to the eyes:

whereas, the pain in Ozena is mostly felt in the superciliary ridge, at first, and generally continues about the os Frontis. and again, the disease of the Antrum. although it does sometimes evacuate the matter through the foramen in the middle meatus, more frequently pours it through the alveolar plate of the superior maxillary, or it burst forth from the front of the same bone on the cheek, both of which characterize the disease, and distinguish it from Ozena.

The prognosis.

Will be favorable; if the general tone of the system is good: the disease of recent appearance; and the occupation one which is calculated to increase the tonicity of the system, and does not present any irritation to the seat of disease. Unfavorable; as a general thing if circumstances be otherwise

Treatment.

It will be necessary to direct attention to the general state of the System, as well as, to the seat of the obvious disease. And for convenience, I will divide the treatment into General and Topical.

The General treatment.

Should be such as will improve the tone, strength & vigor of the body; and at the same time produce that alteration in the secreting vessels, which are so materially impaired. For this purpose the patient should have the advantages of free circulation of air, good nourishment; but at the same time to eat only the most digestible articles. For the purpose alluded to above, namely the alterative treatment, it is probable, that Iodine the next most important article in that class to Mercury, would have as decided an effect in this as well as in other scrofulous affections but Mercury

in the form of the Blue Pill combined with Hyoscyamus and Colocynth, & Rhubarb has been successful in the hands of my Father in overcoming this disease; assisted as it was by the Local application to be mentioned under the head of local treatment.

Exercise cannot be insisted upon too much; if the patient can be at graduating the length of the exercise to the strength of the system.

The Local treatment.

Various have been the injections used, intended as local applications; but from the fact that they rarely if ever reached the diseased part, they were of no avail in a number of cases; in those in which they did do good; it was merely by the transmission of the effect, from the point at which they stopped to the ulcer: and hence they must always be inferior to the introduction of a vapour carrying

with it, the stimulating effect of the medecine, to the Diseases themselves. From the want of success attending the injection of the Corrosive Muriate of Mercury in Solution, the Creasote; the aqueous solution of Nit Argenti; and in fact all the stimulating injections. My Father was led to adopt another plan of treatment, when called upon to treat this disease in a patient who had laboured under it for a number of years. In this case Physicians of eminence in this, and adjoining cities had failed to cure; although they at times did relieve her partially. Quacks were also tried without avail: And her constitution, a poor one at first, had become entirely broken down, by the ravages of disease; and the effects of the remedies used to restore her. Consultations were held; and the lady ordered to resort to watering

places, and again to use. Cupping, Blisters and the usual injections, but she returned from the Springs, without material benefit. at this stage of the case, the fact that these injections had not reached the ulceration, induced him to try the effect of sublimeing Rosin, combined with the Golden Sulphuret of Antimony by placing these articles upon a Red Hot shovel, and covering the head over, the fumes being inhaled, as they arose: this plan was pursued for several weeks, three times a day, with perfect success; the discharge gradually lessening, and becoming more healthy; and from this time, she began to convalesce, and has not relapsed after a period of two years. In another case, the same topical application together with the Pill Hydrarg. Colocy & Hyos. aaa gr. used for 3 months proved entirely successful; and after a lapse of three

years she has never been troubled with this disagreeable affection.
In a third Case, the above mentioned treatment had the desired effect. to check the excessive discharge, & to cure the patient, after he had suffered for 15 years. but about one year after, this had been effected, a Tumor made its appearance on the Cheek, which proved to be a Fungus Haematodes: and from the malignancy of which he died, in the course of 5 or 6 months. — this Case shows the danger of checking any discharge, which has continued for a length of time; and to which, the system has become accustomed, without taking due care to establish another else where. Some authors have doubted the propriety of attempting to heal up such discharges: if we were to attempt to do so, without altering the state of the system; their theory would be a good one:

but when we change the condition of the secretions, and institute a new action, there can be no danger. this theory has arisen from the habit of Empirics using astringents &c &. shutting up all flood gates, which Nature has made to relieve the system without, as I said before taking care to open others. — —

Having determined in a very hasty manner, to come before the board of Examiners, this spring, the many imperfections which have necessarily been introduced into this Thesis, whilst endeavoring to embody my crude ideas of the diseases of the Frontal Sinuses, need some apology; the only one which can be offered with truth & candor, is ~~that.~~

"Necessitas urget, non Coactus scribendi"

Dissertatio Inauguralis
de
Haemorrhoide,
ad Gradum Medicinae Doctoris
adsequendum, conscripta;
Praeposito, Commissariis, et
Facultati Medicinae
Universitatis Marylandianae
oblata,
eumque judicio permissa.

Auctore
Gulielmo B. Moore
Baltimore
Md.
A.D. 1840

Professoribus Universitatis Marylandianae
S. D.

Vobis, eruditis admodum viris, et nullâ
non veneratione dignis, Inauguralem
hanc Dissertationem qualemcunque,
honoris vestri causâ

Dat, Dicat, Dedicat,
Auctor.

Data in aedibus Academicis
16mo Kal. Martis. A.D. 1840

Dissertatio Inauguralis
de
Haemorhoide

Imprimis, ut mihi quidem videtur, opatet, ut ad Haemorhoidem, quippe morbum qui tam saepe Medico obviam venit, et qui praesertim tam difficilis est, ut plurimum, curatu, quique, ut de "diro" Hydrope" ait Horatius noster, "crescit sibi indulgens", quam maxime attentos nos praebeamus, tum ad causas ejus et sequelas scrutandas et quasi limandas, quum ad nexum ejus cum aliis morbis, vestigiis omnibus indagandum.

Idcirco, in hac dissertatione, quantum in me est, conabor, ut quae de hoc morbo medici usu peritissimi, "perfecti homines planeque sapientes" pluribus dissenserint, plane explicem; quo omnia et de ipso morbo et de ejus tractatu, quam facillima

sint intellectu.

Haemorrhois, vel Haemorrhoides vel etiam Hemorrhoidum fluxus a voce αἷμα i.q. sanguis et ῥέω i.q. fluere, dicuntur. Medici nondum consentiunt quod hujus morbi naturam constituat. Hujusmodi sententia est Haemorrhoides esse varicosas expansiones venarum intestini recti; sed, quod proprius ad veritatem accedere videtur, est hoc, quod oriuntur ab extravasato sanguine subter tegumento mucoso intestini recti, et quod sacculus tumoris nihil est nisi membrana, sanguinis gravitate tensa. Complures auctores Haemorrhoidum genera definiverunt in externas et internas, caecas et sanguinantes; sed melius, (ut vocibus utar,) in functionales et structurales, vel etiam in accidentales, et permanentes dividi possunt. Longo temporis spatio, ea quae in tumore continentur, coagulantur, et indurescunt, atque integumenta in amplitudinem adolescunt. Quod attinet ad formam et magnitudinem, Haemorrhoides valde sunt diversae, interdum cicoris, nonnunquam ovi amplitudinem habentes.

Symptomata, quae Haemorrhoides accidentales indicant, sunt: sensus quidem fervoris et doloris circa extremas lumborum partes, cephalalgia et vertigo, inflatio ventris, et saepius indicia generalia aestus febrilis, velut siccitas oris faucium, urinae suppressio et sedimentum subfuscum, cum frequenti impulsu urinam faciendi et faeces emittendi. Saepe inflammantur, sphincter ani comprimente.

Haemorrhoides permanentes, etiamsi penitus internae sint, amplitudine suâ faecium exinanitionem impediunt, et haemorrhagia saepe periculosa est. Hic morbi status oritur, ab iisdem causis, longius dummodo continuatis, quae accidentales profere solent. Quum membrana interna recti in perpetuum obduruerit, morbus non nisi operatione chirurgicâ curari potest.

Pathologia et therapia Haemorrhoidum accidentalium nunc iis, quae sequuntur, amplius tractandae sunt.

Hemorrhoides frequenter sunt symptoma generalis excitationis febrilis, et generantur nutrimento perquam stimulante, vinoque ardente, immodice hausto. Plerumque vero leni et frugali victus ratione evanescunt. Haemorrhoides oriuntur ex quovis impedimento functionum regularium intestinorum

magnorum, quod constrictionem et pressuram provocat.
Itaque aut obstructione alvi, aut diarrhoea generantur.
Vita ratio solitaria et sedentaria maxime semina morbi
fovet; frequens et continuus aloës usus, non minus
quam medicamentorum ventris laxantium eas
prorumpere jubent. Alvi suppressa evacuatio
sanguinem in membranam cellularium circa
extremitatem recti propellit, et tumorem
Haemorrhoidalem procreat. Haemorrhoides,
aliquando originem capiunt et ex nimis
exercendo vires in equitando, et ex longius in
una eademque corporis positione remanendo;
et quod oriuntur ex adhibendo frequentius
syringam vel clysterem; et denique creatae
sunt causis variis, quae liberam sanguinis
circulationem per venas abdominales impedierint.
Propterea, tanquam symptomata graviditatis et
jecoris morbi statuenda sunt. —

Therapia Haemorrhoidum generaliter duabus his
partibus tractanda erit, videlicet: therapia vel
indicatio curativa, et palliativa. Morbo, a totius
systematis statu inflammato, originem ducente,
dentur gr.ᵗᵃ x pulv. Antimonialis cum gr.ᵐᵃ ij Calomelo

in tres noctes subsequentes, una cum haustu salino aperiente mane talis quod ℞ Ly. Menth. pip. ℥vi Magnes. Sulph ℥vi, Conserv. Ros. ℥i M. et cola fiat haustus aperiens - Diaetetica solummodo vegetabilis subsistat, necesse est. Alvo natura duriore, leve quoddam aperiens praescribatur, sed ea conditione utsi in magna ventris intentione efficax sit. Sulphur a nonnullis commendatum est et sub hac forma dari licet, viz. ℞ Confect. Senne ℥i, Sulph. Loti ℥ß, Syrup Solutani. q.s. fiat Electuarium cujus sumat Cochlearia duo (vel tria) minora, mane cujusque diei. Exercitatione ambulatoria regulariter utendum est. Therapia localis vel palliativa consistit in adhibendo hirudines et lotiones frigidas, praecipue, quum inflammatio sit magna. Positio horizontalis corporis retinenda et tumor cauto in Sphincterem ani leprimendus, si prolapsus fuerit. Medicina adstringens adhibeatur, sequenti forma: ℞ Ungt. Sambuci, Pulv Fallarum ā ā ℥ß, Liquoris Plumb Superacetati ℥i M. fiat Ung. Applicetur, si membrana recti profluvio sanguinis relaxata fuerit. Est res memoratu digna, quod Haemorrhoides interdum ex animi perturbationibus vehementibus nascuntur et mirum in modum crescunt. Tum vesicae urinariae pressurâ irritationem et dolorem urinando producunt.

Opinio generaliter est divulgata, quod Haemorrhoides formantur varicosa quodam distentione venarum Haemorrhoidalium, sed omnino falso esse videtur. Sufficiat nobis scire, quod originem suam ducunt a prolongatione materiae cujusdam cellularis extraordinariae duriticiae quae circumdatur aliquot venis et obducitur integumenti marginem ani ruginosum formantibus. Vir Cel. McLean M.D. mentionem fecit casûs cujusdam in quo Haemorrhoides internae et externae curabantur Tinct. Digitalis, administrata per dosin xxxx Gutt. in die et aucta ad LXX Gutt. bis in die. Observatur praeterea quod, antequam Tinct. Digitalis dabatur, aegrotus faciem pallidam et luridam prae se ferebat, quod ejus vires admodum exhaustae erant et corpus exilitate laborabat, arteriarum pulsus celer et tenuis erat et tamen hebdomade unâ praeterlapsâ morbi status minum in modum declinaverat.

Tumores varicosi intestini, quando diutius existerunt, exterpandi sunt aut cultro, aut ligatura. Equidem sane cultro eos excindi praeferrem, quum ligatura applicata, inflammationem peritonaei, convulsiones, urinae suppressionem et ipsum Tetanum provocaverit.

Haemorhoides interdum inveniuntur magnitudine pomi, nec est valde probabile, solam varicem unquam tantam in molem extumescere.

Haemorhoidibus cultro excisis, sanguis saepe pariter promanat, quae res in varicibus nunquam haberet locum. Aliquando cystis Haemorhoidum inveniitur esse vacua, quod factum ad varices minime applicandum foret. Forma Haemorhoidum multum et tali modo variatur, ut varices, neutiquam ejusdem naturae esse statuamus; et denique, quando vesciduntur, saccus unâ solummodo membranâ formatus esse apparebit. Sanguis frequenter coagulat in vena partitâ et tumor valde inflammatus, dolorem vehementem perhibet. Coagulum exinde absorbitur, sed integumenta concrassata venae non minus quam partes circumjacentes formant tumorem inflammabilem et multum doloris afferunt. Similitudinem praebent tumorum fluctuantium et excrescentium. Vir Cel. Kirby. Eblanae. dicit: "Non possum pro certo habere, quod Haemorhoides varicosa distentione magnae Haemorhoidalis venae formentur, —

Nam quotiescunque Haemorrhoides externae erumpebant, tumor ortus esse videbatur a prolongatione substantiae cellularis nimis condensatae et concretae, quae aliquot venis circumdabatur et integumentis complicabatur;

Non est quod dubitemus, tumores interdum amplificatione varicosa ramorum venae Haemorrhoidalis consistere.

Haemorrhoidum est diversitas quod attinet ad magnitudinem numerum, formam et sitam.

Sanguinis profuse emissi copia saepe vitae periculum immittit; nec non inflammatio partium adjacentium abscessus vel fistulas excitat et denique strangulatio grave cruciatus cieri solet. Plerumque Haemorrhoides, altius in ano sitae, non multum doloris afferunt; imo patiens earum saepe non est conscius usque dum sanguinis profusione animum advertat.

Vir Cel. Howship in casibus, ubi inclinatio spasmotica in sphyncter ani cum irritabilitate nimia in intestino conjuncta sit introductionem syringis metallicae in certum temporis spatium commendat.

Quum numerus et magnitudo Haemorhoidum tales sint, ut faecum evacuationem obstruant, quum acres dolorem morsus est et profusum humorem secum ferant, quum aegrotus de negotiis suis perficiendis detineatur denique quum omnia, quae ad leniendos dolores adhibeantur, irrita sint, tum chirurgus eas removendas et extirpandas esse censebit.

Quando Haemorhoides excidendae sunt nec plane videri possunt, aegrotus tanquam alvum evacuare vellet, intestinum ad=stringendo propellat, ita ut tumor magis appareat, partes dividendae sunt cultro.

~~quas Haemorhoides coicum=t cult ab iis separanda, non vero abscin=dend est,~~ tumores tenaculo protracti extirpandi sunt.

Lechatier censet cutem maximâ curâ esse retinendam et multum utilitatis in casibus hemorrhagii inde derivari posse, quia faciliis hemorrhagium eo modo supprimere licet.

Quando complures Haemorhoides removandae sunt, tum minus substantiae circa anum

amittetur et aegrotus non ~~xx~~ tantum contractione harum partium afficietur quantum aliter fieri solet. Si haemorrhagium insequitur intestinum distendatur spongiâ, vulnere comprimente, et cataplasmata frigida circa nates et sacrum applicentur.

Non videtur eorum opinio simili modo approbata fuisse, qui Haemorrhoides ligaturâ removendas esse censerent. Dr. Cel. Horwhiss ligaturam praefert, sed ceteris paribus, Haemor. multo melius cultro exsecantur, excepto solummodo casu, ubi nimis alte in intestino sitae sint. Tum ligatura applicanda sit circa basin tumoris, canulâ duplice adhibita.

Haemorrhoides inveteratae, quae saepius inflammatae fuerant, ad ultimum permagnam duritiem acquirunt. Membrana interna recti indurescit, propriam et pristinam mollitiem amittet et cystem quandam format, quae tumoris eruptionem et sanguinis effusionem prohibet. Postremum ulcerat et foetidam effluviem emittet et

Itaque nihil nisi exsectio praevalebit.
Opinio maxime divulgata est, sanguinis
profluvium ex Haemorrhoidibus emissum
esse salutare vel saltem signa crisima
indicare. Quare multi dolores acerrimos
subire maluerunt, quam morbi curationem
plenariam adhibere. Quando aperte haec,
quae statuit, aegrotos, hemorrhoidibus curati,
detenoris valetudinis statum nactos esse,
vera sit; et quando firmis argumentis
probari possit, Haemorrhoidum fluxum
salutare quoddam emolumentum affer-
tum doctrina, supra dicta, digna foret,
quae ab unoquoque viro medico
approbaretur. ~ - - ~ - ~

Finis

An
Inaugural Dissertation
on
Dysentery.
submitted to the Examination of the
Provost Regents & faculty of Physic
of the
University of Maryland
for the degree
of
M. D.
by
Richard E. Weston
of
Windsor
Bertie County
North Carolina.

February 1840.

It is with no small degree of embarrassment, that I undertake the performance of the office allotted, by the laws of the institution, under whose auspices I am, to every candidate for a degree of Doctor of medicine. But when I consider the high and noble character of the faculty, under whose indulgent critices on this is to appear, I feel my confidence not a little prompted. I flatter myself also, that my feeble attempt will stand in bold relief to any failure on my part, in the critical judgement of my distinguished preceptors. It will be taken for granted, that I do not write from any practical knowledge, but entirely from theory. And I stand in the same relation, to the faculty of medicine to whom the following ~~this~~ dissertation is dedicated, as the branch does to its parent vine. I presume that a

thesis is intended, merely, as an essay of the medical attainments of the candidate and it will, therefore be perceived, that I write with less respect to style, than to a discovery of what little I know.
I propose dysentery, as a theme for discussion.
Dysentery is principally a disease of the large intestines, consisting of acute inflammation of the mucous membrane of that part of alimentary canal, attended with intense pain tenesmus, or an irresistable desire to pass the fæces, great tormina, and frequent discharges of matter consisting of mucus and blood.
I think this disease, may with propriety, be divided into simple compound, or bilious remitting dysentery, and also by phrase (Dr Potter)
The symptoms will, of course vary according to the form it may

assume, which also will depend upon the causes producing the disease. In the mild or simple form, the bloody and mucous discharges, will perhaps be accompanied with urgent and frequent calls to the close stool, and griping, which will increase as the disease advances, and consequently much fatigue and prostration may ensue. Frequently the disease is preceded by alternate chills and fevers, lassitude, nausea, costiveness and other symptoms indicating manifest derangement of the alimentary canal. Notwithstanding the frequent attempts at the close stool, not much else is passed, than blood and mucous, which, when copious is a favorable sign, as it ameliorates the disease by depleting the blood vessels of the mucous coat of the bowel. The tormina and griping are generally very severe just a

before going to stool. All these symptoms increase in intensity as the disease advances. Most commonly there is considerable fever but sometimes the heart and arteries appear to take but little notice of the diseased bowel. If the disease is not checked, and proceeds to a fatal termination, colliquative diarrhoea precedes it.

The compound or bilious remitting dysentery modifies its symptoms according to its pathology. I have not seen this form of dysentery mentioned in the books, though Dr Eberle describes it without giving it a name. (names are of importance sometimes). Dr Potter describes this form of the affection, and gave it the nomenclature I have adopted. The symptoms which characterize this form of the complaint, will be, in addition to those connected with the simple form such as indicate a manifest derangement

of the liver: In this condition, the original disease will be much more embarrassed for all the excrementitial secretions are more or less suspended; such is the sympathetic relation which this important organ bears to those secretions which perform this function. The liver and skin appears to possess a mutual sympathy for each other, in this disease, for the secretion of one is suspended nearly in the same proportion as that of the other is distributed. The urine is greatly diminished in quantity as well as in quality; it is very red. The alvine matter though scanty indicate an embarrassed condition of the liver. The liver is in a state of more or less congestion. Thus we see that the whole system is under the influence of the disease, which is essentially inflammatory in its character.

In the typhoid stage; the patient is

found in a low and prostrated condition and evacuating nothing from the rectum but blood and mucus, The whole animal economy seems to be subdued and overcome by the disease. The causes of this disease may be considered as consisting of two distinct classes, viz, the sporadic and those which act on the general system. By these agencies constituting the first class, the disease is produced in its most simple form. They are substances taken into the stomach as food, such as crude fruits and other indigestable articles of diet. As substances introduced into the stomach, capable of producing dysentery, operate either by coming in contact with the part affected or by generating an aerid gas by a process of fermentation or decomposition, I conceive it probable that the disease is seldom caused by such agencies for

I cannot see why the upper portions of the alimentary tube should not be as obnoxious to their irritating properties as the lower, and therefore, in every instance become the seat of the disease from such causes instead of the bowels.
Would it not be more proper to refer the cause of this form of dysentery, altogether to cold?
The causes which act on the general system, giving rise to bilious remitting dysentery, are atmospheric vicissitudes and malaria. In this case, the disease is one of indirect debility. Heat first act as a predisposing cause, and whenever the system is suddenly exposed to cold, the blood in consequence of debility created by excessive heat, recedes from the surface to the center and is sent to those organs which are rendered most excitable by the predisposing cause. The malaria expends

its force in giving rise to the pathological condition of sanguiferous system. The liver seems peculiarly obnoxious to the influence of malaria. The same degree of temperature which causes the exhalation of miasmata, may be sufficient to act as a predisposing cause, while the malarious exhalations act as the exciting, thus giving rise to the combination of symptoms characterizing the disease. May not the disease be produced by the combined influence of the sporadic, and those causes which act on the general system? Dysentery most frequently occurs in cold damp falls, succeeding dry, and hot summers. When the system has been exposed for some time to a high temperature in conjunction with Miasmata, and then subjected suddenly to cold; the cold and

chiefly weight air for instance, the exhalents, in consequence of the previous superexcitation by heat, become weakened, and by the centripetal motion of the blood thus acquired, the liver in common with other internal organs are engorged with blood, constituting inflammation.

Dysentery consist in acute inflammation of the mucous membrane of the colon and rectum. Dysentery is not necessarily a dangerous disease, particularly the simple form. The bilious remittent varety cannot be said to be unattended with danger. The disease in the typhoid state is attended with considerable danger.

The treatment of dysentery will of course be modified according to the form it may assume. The simple form is not very difficult to manage. There are three indications

to be attended to, viz, to reduce vascular excitement, to remove any irritating substances deposited in the alimentary canal, and to correct the cutaneous exhalents. The first indication is fulfilled by general blood-letting and purging. Bleeding is not always necessary. By bleeding the momentum of the circulation is reduced and the bowels relieved by a determination of the blood from them towards the surface in order to restore the equilibrium. Purging cannot be dispensed with. They not only relieve the bowels of their irritating and vitiated secretion, and other foreign substances, but also lessen the inflammation of the mucous membrane of the bowel itself, by inducing an increased secretion from the arterial extremities of the internal coat. For this purpose the sulphate of magnesia answers

better than any other article, for it not only has the properties of evacuating the contents of the alimentary canal and reducing inflamation by inducing watery discharges, but it is refrigerant and is not irritating in its action. The watery discharges are produced from the arterial extremities of the mucous coat. These kinds of evacuations tend to lessen inflamation, which shows the beneficial effects of the remedy employed. Dr Potter recommends the sulphate of magnesia, the high source whence I first got the idea. Calomel and opium combined is generally recommended. The opium, I imagine is intended to the severe pain generally attendant upon the disease. (Is there ever any spasm) Opium has a tendency to suspend the secretions. When the patient suffers from intense pain and

griping, would not hyoscyamus answer better, as a substitute for opium? It is anodyne and laxative while opium is constipating. When the skin is dry and hot, diaphoresis may be promoted by a few doses of the pulvis Doveri. When there is great pain accompanied with a hot and burning sensation, relief may be obtained, by injecting into the bowel a watery solution of starch, an anodyne being added. The patient should be allowed to eat nothing but mildest and most digestable articles of food. Mucilagines may be given with propriety during the course of the disease.

The treatment of bilious remitting dysentery will be modified according to the indications to be fulfilled. Here the largest and one of the most important organs of the animal economy is conspicuously implicated the liver. The liver is torpid and in a state of congestion, and

all the symptoms of the disease are aggravated. The skin sympathizes with the liver; its secretions are suspended and it is hot, the pulse is high. The first thing to be done in the treatment, is to practice prompt and decided bleedletting which equalises the circulation and relieves congestion of the liver and bowels. Purging is the next object, and for this purpose, Calomel is the samp son, which produces its specific effects by irritating sympathetically the lining membrane of the gall-duct and inviting the liver to disburthen itself of its depressing load in order that it may return to the discharge of its important duty. In other respects this form of the disease is treated like the simple. The diarrhoea which sometimes attends dysentery, will be obviated by the same means adapted to cure the original disease.

Sometimes perhaps, some astringent medicine will be necessary. While the patient is convalescing the mildest and uniritating diet is to be employed, such as gruel made of rice, barley tapioca & animal broths, the best of which is mutton soup, made by cutting the mutton up fine and boiling it well with water and seasoning it according as the condition of the stomach requires. When the disease has been severe and the patient much reduced, some mild vegetable tonic should be employed during convalescence.

The low and typhoid form attended with discharges of nothing but blood and mucus, is to cured by stimulants, such as opium wine whey and the mildest and nutricious diet.

Of course the drafs is to be attended to in the cure of dysentery. The warmest and most comfortable clothing should be worn.

An
Inaugural Dissertation
on
Dysentery
Submitted
to the examination
of
The Provost, Regents, and Faculty
of Physic of the University of
Maryland
for
the degree of Doctor of Medicine
by
J Grattan Cabell
of
Richmond Virginia

February 1840

Dysentery or inflammation of the large intestines. This disease has been termed Bloody flux; but this when ~~it is~~ particularly characterised by bloody discharges.
This disease is divided into acute & chronic form. It appears in its most malignant forms in warm countries and is much more prevalent than in more temperate climates. The remark of Stokes, that in these hot regions, "there is a greater susceptibility to disease of the digestive system, from the extraordinary nervous excitability of the digestive mucous membrane of the stomach and intestines, and of the organs connected with the digestive tube" appears to be true, as is evinced by the great number of cases of this disease.
Hoemorrhoids have been mistaken for this disease: between the two affections there is a marked distinction, viz that in the former there is no discharge of mucus, which is generally prevalent in this disease.

The predisposing causes are various. From its prevalence in warm latitudes we are justified in asserting that heat is one. This is especially the case when heat is aided by marsh Malaria; but either may produce it. Change alle wheather, but more especially from dry to cold & damp.
Any crude and indigestible article of diet, or any article of diet in a state of putrefaction.
In an attack produced by Malaria & heat, we have all the symptoms of bilious remittent fever, hard pulse, head ache, puking of bile, and if here, it is not relieved, it will runs on until we have the Black vomit of yellow fever. This is not of frequent occurance, although it has been seen by good authority.
Symptoms of course vary according to the exciting causes, and the impression which these exciting causes may have made upon the system. The attack is generally ushered in, with the ~~symptoms~~ feeling

of general lassitude, want of appetite slight chills, thirst, dry skin, irregular pains in the bowels, costiveness & diarrhea. When the disease is likely to be rapid in its progress, the griping pains, bloody mucous discharges soon manifest themselves. Fever is generally established before the peculiar discharges are manifested, but here there are exceptions, as we occasionally find them before any fever is set up. The severe twisting pains usually called tormina are most excessive, and are plain indications of the severity of the attack. There is an almost constant desire to evacuate the bowels which is called Tenesmus; and the patient will persist in using, and remaining on the close stool for some length of time. The two last symptoms distinguish this disease from diarrhea, for although there is pain in diarrhea it is of a different nature, but it is not easy to distinguish the difference, unless a person has suffered from the two diseases.

there is great variation in the pulse. In the beginning there is not much variation from the natural healthy pulse, but as the inflammation is gradually established, the pulse is accordingly altered, becoming fuller, harder & more frequent, according to the severity of the attack. There are cases however in wh: the heart & arteries appear to sympathise not at all or at least in a very slight degree with the local affection of the mucous coat of the intestine. Hence fever is not, as is ~~generally~~ supposed by some to be the chief distinguishing mark between this affection & diarrhea, as we can have either with or without it. When the attack has been permitted to run its course for some time without being subdued, the pulse becomes small & very frequent.

The discharges are at first watery and profuse, or they may be scanty. They then become bloody and mucous, and acquire a peculiarly disagreeable odour to which the name of dysenteric has been

~~given~~ applied. They frequently contain shreds of mucus; and it has been asserted that mucus assuming the shape of the bowel, of one or two inches in length has been voided with the passages. The passages resemble very much the washings of putrid meat. When the disease is far advanced the discharges are purulent or muco purulent mixed with blood.

The tongue at first is furred with a white coat, which afterwards becomes a dark brown colour, gradually leaving the edges which are then very red. The urine is scanty & red. There is frequently a difficulty in voiding the urine as is asserted by most writers; but in advanced cases, if this symptom should supervene, we might attribute it partially to the use of blisters which then become necessary. The attack may end in a colliquative diarrhoea.

We stated this was a disease of the large intestine; this is frequently evident before death as is evinced by pressure

on the bowels over the course of the large intestine, which is then very tender. We can in this way, trace the extent of the disease, it occasionally being only on one side, but frequently and in severe attacks this tenderness occupies the whole course of the colon. The bowels frequently become so tender, that the least pressure will bring on a passage. When the liver is implicated we have either a morbid secretion, or none at all, the passages being white. Post Mortem appearances. When the attack terminates speedily, more from the violence of the febrile symptoms we find numerous red elevated patches in the mucous coat of the large intestines; the disease not having as yet run into ulceration. The Inflammation is generally confined to the large intestines, but the small intestines may be inflamed slightly, from the inflammation extending by sympathy. They will hence be found more inflamed near the Caput coecum.

But the most probable cause of their inflammation is the passage of acid fluids over their surface; but these fluids being longer confined, would prove more irritating to the large than small intestines. When the attack has lasted for a length of time we may expect to find, ulcerated spots, with well defined & raised edges. These edges are generally hardened, and hence present an obstacle to the speedy healing of the ulcer. The ulceration occasionally extend through all the coats of the intestine, and the contents of the bowel are poured out into the abdominal cavity, producing peritonitis & death. The ulcerations do not generally extend through the coats of the intestine as the patient is carried off before it could be effected. In many cases the whole mucous coat appears of a deep red, or brownish red

ulcers, elevated at different points. These points frequently contain something of a tuberculous matter; this is especially the case in persons who were suffering at the same time under Phthisis. This tuberculous matter differs from an enlargement of the mucous follicles from irritation. In this disease we find an enlargement of these follicles. The mucous coat is softened in some places, while in others it assumes a thickened and hardened feel. When there is this softening the mucous coat can be detached by the nail. The liver when implicated in this disease may be engorged, but we should not expect this in a case where there had been sufficient depletion. In epidemic dysenteries, the derangement of the liver will be more evident than in sporadic cases, especially where the disease is prevalent in hot and malarious districts.

In chronic cases many of the ulcerations may be in a ~~state~~ of process of healing cases of which I have seen, the patients being carried off by other diseases, but the diarrhoea still continuing masked the symptoms of the other diseases.

Treatment. This being an inflammatory disease, and the inflammatory symptoms manifesting themselves in almost all attacks very speedily, we would naturally call in the aid of blood letting, the enemy to inflammation to subdue it. In all attacks we do not require the aid of blood letting, as in a mild attack and before inflammatory action is set the use of a purgative will most probably arrest the disease. But in more violent attacks it is generally admitted that the use of the lancet is the best means of subduing the disease. It is impossible to say how much, and how often we should bleed, and our only guide is the subsidence of all inflammatory symptoms. We will frequently be obliged to

draw blood from the arm for several successive days. But one decided & large bleeding, carried so far, that we produce syncope, will be found more serviceable than small & repeated abstractions of blood. ~~Blood letting~~ The use of blood letting in this way will not be found beneficial after the case has run on for any length of time, and become in other words chronic. It is impossible to state for how many days, after the disease has lasted that general bleeding would be inadmissable, we can only judge by the symptoms of each attack. Local blood letting will (after the use of the other) be attended with beneficial results; but it should not be resorted to prior to the use of ~~the~~ general bleeding. In chronic cases this will have to be substituted for the other more powerful means of depletion. we can for this purpose use either the cupping glasses or the leeches, but the former will most

generally have to be resorted to, from the difficulty and expense of obtaining the latter. The cups should be applied along the course of the colon. The leeches may be used in the same way, and should also be applied around the anus. We frequently have to resort to the use of leeches after repeated bleedings, from the fact, that the bowel becomes so tender that the application of cups would be insufferable. We can then use relays of them with benefit.
The next most important remedial means, is the use of cathartics.
Formerly this disease was mostly treated with oil to the exclusion of the rest; but it is now the general practice, to make use of some of the neutral salts, and sulphate of Magnesia is usually selected. There is no doubt but that this change is beneficial, especially in attacks to which you are called early; but when the disease is further advanced I would

prefer the use of castor oil. The use of oil was tried very extensively, during the past summer at the Baltimore Alms House and it was attended with very happy results both in acute and chronic cases. An objection has been raised to this remedy, viz that it has a tendency to gripe. This objection might have been urged against its use, when it was used unpurified as it formerly was, but it cannot possibly now be: its mode of preparation rendered it liable to it, but now both of these are obviated. We should look upon cases in wh it griped as exceptions. Another advantage in its use is that it acts mechanically in lubricating the inflamed or irritated bowel in its passage through it. When we commence with this article it should be given in doses of two ounces. If we use the Sulphate of Magnesia it should be combined with a small quantity of Tartrate of Antimony say a grain to the ounce

of salts dissolved in eight ounces of water the patient being directed to take a table spoon of the mixture every two hours until free purgation is produced. This mode is preferable to taking a large dose of salts at once, as by the above combination the patient is kept nauseated, and as a consequence we have a gentle degree of diaphoresis kept up.
If the case does not yield to the above means we must continue the use of cathartics, and here I would lessen the doses, and would use oil. Calomel is specially serviceable in cases in a malarious neighborhood, and should then be preferred to either of the other remedies that I have mentioned. And even in any case after using other cathartics if the disease was not subdued a dose of this article would ~~would~~ be found useful, following it by salts or oil. But in inflammatory attacks where we ~~dod~~ do not think

the liver implicated it will be unnecessary to resort to this remedy, as it acts principally on the liver and upper intestines. It is usual in prescribing this remedy to combine with it opium in doses of one grain to ten or twenty of the former: or using the Dover's powder in its place. When the attack has continued for some time and the liver is not secreting healthy bile, small doses of calomel should be used.

These are the principal cathartics now used for this disease, and after the use of them as the bowels should be soothed & quieted I write next mention the anodynes used.

Opium in its various forms is the only one which is now prescribed Dover's powder from its action on the skin is extensively used, and is well deserving of the reputation which it has acquired: but as it will occasionally produce vomiting it cannot be used in all cases. It should be

given in doses of 10 grains. Opium may be used in the solid state by itself. The tincture of Opium is also used, and by combining it with bicarbonate soda and some of the essential oils we have a very pleasant anodyne mixture. The proportions are ℞ Carbonas Sodae ʒ ii Tinctura Opii ʒ i Olum Menthae gtt iv Aqua ℥ viii the patient being directed to take a table spoon of the mixture every 2 hours. The quantity of the laudanum can be increased according to circumstances. Laudanum can in this way be used by the mouth, but it frequently becomes necessary to apply it to the Rectum; mixing it with a small quantity of starch well boiled, and warm water it can be used as injections. The solid Opium can be used as suppositories with almost equal benefit.

When the discharges become very frequent, and we cannot arrest them by Opium we must call to our assis-

-tance, the various mineral and vegitable astringents.
Among the mineral astringents the Acetate of lead is the most preferable, and should be administered both by the mouth, and rectum in injections. We should commence in a small dose gradually increasing it, until we administer five grains by the mouth and ten by injection or we could carry it beyond this without fearing unpleasant consequences. The injections should be repeated after every evacuation, and should be combined with the starch and laudanum. What is given by the mouth should also be combined with Opium.
Some of the other mineral astringents may be used with advantage, but the chief reliance is placed in this remedy.
Among the vegitable astringents, there are many which are used with advantage but I am inclined to give the preference to the Rubus villosus the Kino.

The first should be used in the form of decoction. As there is an officinal preparation of the Kino viz the Tinctura, it can be used in this state, but from its strength, and liability to produce pain the infusion can be advantageously used. The Kino is used in a mixture of chalk and laudanum. Here the chalk acting as an antacid would remove any existing acidity in the stomach & bowels and prevent in this way the diarrhoea. It has also in my opinion a constipating effect not to be ascribed to this mode of its action.
I should have mentioned under the head of the mineral that Lime Water is frequently used with advantage.

Emetics are recommended by some. There is no doubt, but, that in the early stage of the disease they would prove useful. They are principally used in the southern states, and might with equal advantage be used in malarious districts farther north.

As we usually find the skin harsh and dry, not performing its functions or at least in an imperfect manner we should try ~~and~~ to restore it by the use of diaphoretics. I have already spoken of the use of Tartar emetic. It should be given in fractional grain doses so as merely to keep up nausea. The celebrated Dover's powder I have alluded to under another head, but its diaphoretic properties are very great. It is now very generally used in this disease. I mentioned when & how it should be used. The warm bath is highly serviceable: and even the hip bath will tend to relieve the patient very much.

The application of flannel wrung out in hot whiskey & salt, or even in warm water, ~~and applie~~ to the bowels ~~is a soothing~~ lessens the pain, and morbid sensibility of the bowels, & tinges as emollients: ~~the~~ same of hot fomentations, and poultices.

Blisters in protracted cases or even in the inflammatory attacks which have run

their course very rapidly, and are liable to exhaust the patient, become necessary. They should be applied over the bowels at first, following them by poultices. A large one covering the whole bowels should be used. They can be applied on other parts of the body afterwards, if it becomes necessary.

Stimulants of other kinds, for a like reason become necessary. We should combine them, in acute cases with anodynes. In chronic cases they should be combined with tonics. Here Strychnine and Oleum Terebinthae are recommended, and there can be no doubt but that they are useful. In this form of the disease Copaiba is useful, it's action being directed principally to the mucous membranes. From the action of nitrate of silver in ~~all~~ chronic inflammation of all the other mucous membranes, I am led to believe that injections of this substance in solution would be useful. In these cases the diarrhoea is not generally produced by the inflammatory condi

tion of the mucous coat, but rather from a morbid and unnatural irritability of it, and hence we should stimulate it to an altered action; and as nitrate of silver acts so beneficially when applied to the other mucous membranes there is no reason why it should not be equally useful here.

Prepared charcoal is a remedy which is greatly lauded by some Physicians for cure of this disease. I have seen it used on several occasions in this disease and with benefit. I have heard of cases cured entirely by the use of this remedy. Its absorbing qualities being so manifest we can understand its mode of action, by removing or rather rendering inert the acid fluids generated in the intestinal canal; and removing the gases by absorption, which from their pressure on the coat of the irritated & inflamed bowels is likely to produce pain.

In this disease especially, as in all inflammations of the intestinal tube, the

diet should be strictly attended to: The articles of food should be easy of digestion, and in acute attacks it should be our aim to procure as much quiet and rest for the bowels as possible. The patient should be directed to be as abstemious as possible, living upon barley water and articles of this class. Meat must be strictly prohibited. Warm drinks are preferable to cold. When there is evidence of the patient sinking, we must allow articles of a very nutritious character, but which are at the same time easy of digestion. We must follow the same course in chronic cases.

An Inaugural Essay 1841

on

Delirium Tremens.

Submitted to the Examination of the
Provost.
Professors and Regents, and Faculty of
Physic
of the

University of Maryland

For the degree of

Doctor of Physic

by

Benjn Rush Hall
of
Baltimore. Maryland

To the

Professors of the Faculty

of

Physic.

of the

University of Maryland

this

Inaugural Essay

is

Most respectfully

Inscribed & dedicated

by the

Author

Delirium Tremens

This singular variety of mental alienation engaged my attention particularly during my residence as house surgeon at the Baltimore Infirmary. There is no disease more likely to interest the young practitioner than the one under consideration. Its character, and the necessity of using such active remedial agents, create great anxiety on the part of the practitioner, seldom equalled in any other disease, which falls under his notice. There seems to be much difference of opinions, as regards the pathology and treatment of this disease.

Etiology. The most common cause of this disease is the abuse of alcoholic fluids or the abstraction of them after long indulgence. It also occurs in those who have been addicted to the inordinate use of opium, or other narcotic stimulants. It seldom occurs in those who keep up the effect of the ordinary quantity of stimulus, but if from sickness, disgust or necessity, the usual quantity of stimulus be withdrawn,

the attack generally follows. The activity of the brain becomes morbidly increased, and mental disorder generally ensues. "Dr Bates says, that this disease is the result not of the application, but of the sudden intermission of the use of these alcoholic articles

<u>Symptoms.</u> The disease usually commences with headache, lassitude, memory defective the ideas follow each other in rapid succession, nausea and vomiting, giddiness, tremor of the hands, slumbers short and disturbed. After a day or two total want of sleep, the patient now appears anxious, subject to hallucinations, the tremour of the hand increases, he becomes irritable, extremely restless, his eyes acquire a wild appearance with the pupils generally contracted, he is not able to ~~[illegible]~~ hold his tongue steady when protruded (but this occurs in all hard drinkers) The tongue is frequently red along the edges, and

almost always coated with a dirty white fur. The pulse in some instances is hard, full, and frequent, but most commonly soft, full and quick. He now begins to manifest mental disorder, is tormented with a succession of alarming, disgusting and ludicrous apparitions. He sees men shooting at him, hears birds whistling at him, beasts, robbers insects devils and uncouth shapes, play a conspicuous part in these waking dreams. He is constantly engaged in picking up something, or in freeing himself from the vermin which he conceives are crawling over him. A rational answer may be obtained when he is kindly dealt with, he is rarely violent, on the contrary pleased to be in company, talks incessantly, takes medicine willingly very few require restraint. Patients affected with this disease do not appear to be susceptible of

much bodily pain. In a case which fell under my observation, where a man jumped from a two story window upon the front door steps, fracturing his low jaw bone, he did not complain but pursued his usual occupation, of a loafer, for two or three days. When he was brought to the Infirmary and his fracture dressed, he tore the splints off as they prevented him from chewing tobacco and would not allow them to remain until confined by tying his hands to his bed. The nervous system is also in an active state of excitement He runs to the doors to admit his friends, who he imagines wish to enter. The symptoms are not so severe during the day as at night. The skin is sometimes hot and dry but is generally covered with a profuse clammy perspiration. The symptoms described above continue

Dr Coates, Johnson and Eyre consider it as a purely nervous affection having no connection with inflammation of any other organ and say - That whatever appearances of inflammation that are met with, on post mortem are secondary and have no influence in the production of the disease. The abstraction of a stimulus which acts directly on the stomach and through it on the brain and ganglionic system, to which stimulants they have become so habituated as absolutely to require them to perform its functions, gives rise to irritation of the stomach, which is radiated sympathetically to the brain, ~~and~~ to the whole nervous system then suffers from this cause, and also for that stimulus which gave it tone. And the abstraction of which has thus thrown it

into such an irritable state. May we not consider this disease dependent upon an irritable state of the ganglionic, Brain, and nervous system? and accompanied with an irritability of the stomach?

Treatment. If we say that this peculiar condition of the nervous system is almost invariably the consequence, not of the application but of the sudden abstraction of the customary stimulus. We infer then that the best mode of effecting a cure is to supply a stimulus which will at once allay the irritation of the nervous system. For this purpose we must use Opium in sedative doses. But in many cases Opium will not produce its sedative effects in whatever dose it may be given. I have seen it, in place of allaying nervous irritation increase

every symptom of the disease. But notwithstanding this it is one of the best remedial agents in the treatment of this disease. Tinct: Opii is the best form in which to use it, in most cases from ℥ss to ℥j. The dose of the Opium in substance is from two to four grains. Where there is great irritability of the stomach some of the preparations of Morphia may be used in the dose from half to a grain.

Dr Coates says "I have never seen, read or heard of a case in which Opium was productive of harm" But Dr Eberle mentions a case of delirium tremens, where four grains doses were given every two hours. In twelve hours the patient was comatose, became convulsed and soon expired

<u>Cathartics.</u> are very useful in this disease, we often find the bowels

extremely torpid. Among these we may use Ol: Ricini. Ol: Terebinthinæ and also laxative enemata.

With regard to the employment of blood letting in this affection Dr Armstrong says "in constitutions that have not been shaken by reiterated drunkenness. he has known early and moderate venesection of much use Dr Potter says he has derived the greatest advantages from the use of the lancet. The experience of Drs Gregory. Shield and Stewart is decidedly against the use of the lancet. I think I have seen the use of the lancet of decided benefit in a case, where the patient was young and robust. Cupping about the temples and on the nape of the neck is of considerable benefit Blisters will sometimes act beneficially when applied to the back of the

neck

Emetics In patients who have good constitutional vigour I have seen emetics produce very favorable results at the onset of the disease. Dr Eberle mentions a case where divided doses of Antimony as an emetic killed his patient

Besides Opium various stimulants have been employed in this disease, as Camphor, Asafoetida, Camphorated tincture of Opium, Ammonia, Hoffmans anodyne. Cold and tepid affusions have been recommended in this disease. Dr Armstrong speaks favourably of dashing tepid water strongly impregnated with salt over the patient. He also used cold water with decided benefit in young and robust patients.

1841

An Inaugural Dissertation

A Medical Dissertation

on

Hydrops.

Respectfully submitted to the examination of the Provost Dean and Professors of the University of Maryland

by John Ridgely

of Baltimore.

for the Degree of

Doctor of Medicine

by John Ridgely

of Baltimore

hydropsy or rather the effused and accumulated fluid, which constitutes the most conspicuous external character of this disease, must be considered only as an effect of a primary morbid condition of the solids. The condition which gives rise to this morbid effusion is the point to which the medical man must direct his attention, in order to acquire a rational view concerning its nature, remedial treatment &c. The cure of this disease does not depend upon the evacuation of the watery fluid effused, which as I have before remarked is the effect not the cause of the disease, but to remove the cause or causes which may have given origen to that disorder of the vascular system upon which dropsical effusions are mainly dependent. according to the late celebrated Dr. Kirsh, the diseased condition which gives rise to dropsies are seated in the arterial system, and are in their nature closely allied to inflammation. Dropsical collections according to his view are caused by the increased action of the exhalent vessels, attended with a general pyrexal condition of the system. The correctness of this doctrine is

now very generally, we might perhaps say universally admitted. The imputing of dropsy to the pyrexial and not cachexial state is one of the most important improvements in modern pathology. That the increased secretion or effusion of serum which occurs in dropsy is dependent on an excited condition of the exhalent system closely resembling inflammation receives the greatest degree of probability from the following circumstances. Any one who has observed the progress of inflammation, knows that at the period the inflammation is subsiding or passing into the subacute or chronic form, an effusion of serum is apt to take place either in the cellular tissue or contiguous cavity. Thus a number of diseases pass of by effusion of serum. It is well known in inflammation of the pleura we have an effusion into the cavity of the chest or hydrothorax — and from arachnitis we have hydrocephalus. Indeed the pathological fact that all cases of inflammation affecting the serous membranes if not very violent or terminating by resolution must end in effusion of serum is directly corroborative of the correctness of this view of the pathology of the disease. The tissues from which the dropsical

effusion occur must it is very probable partake more or less of the nature of inflammatory excitement. That there is a morbid grade of excitement which gives rise to dropsical effusions is beyond a doubt, for we never find dropsy originating, even there is great inflammatory excitement, it is only when the excitement is reduced to that point bordering on irritation that serous exhalations takes place, thus may the good effects of a blister be accounted for when applied after the excitement is reduced. To this doctrine of the nature of dropsy a great many objections have been started. Many of them very plausible in their nature untill strictly examined. Some writers have made the cause of dropsy in some instances to depend on profuse hæmorrages producing thereby exhaustion rather depending on inflammatory excitement, against this however it may be observed that a local irritation or inflammatory action and great debility and exhaustion may exist at the same time. But Inflammation may exist in one viscus whilst the whole system exhibits all the phenomena of exhaustion. Dissections after death from loss of blood have exhibited in a great many instances local inflammation in the

meninges of the brain, and watery effusions in the substance of that organ, thus showing that exhaustion from loss of blood is attended by more or less inflammatory excitement. That dropsies are mainly dependent on the activity of the exhalent vessels pouring out the serum none can deny; but there must exist a simultaneous decrease of absorption in the surface from whence the secretion takes place, to account for the immense accumulation of fluid, which often occurs. To constitute inflammation there must be an undue determination of blood to the part, and consequently congestion. Now it follows as a matter of fact that the capillary system of vessels belonging to the part from which the dropsical effusion occurs must be in a state of congestion. Physiologists have come to the conclusion that absorption from the cavities and cellular tissue is performed chiefly if not entirely by venous extremities. There is also another well attested fact if we may judge from direct conclusive proof, that is, that the process of absorption is increased or retarded according as the capillary system contains more or less blood. I think the result indicated by refraining from the use of stimulating articles of diet

which must necessarily by their action on the general circulation increase the quantity of blood in the capillary system of vessels, go far towards proving that the powers of absorption are materially governed by the quantity of blood contained in the circulatory system. That the process of absorption is increased to a great degree when we reduce the circulatory system, the action of the tartarized antimony will show, which by its depletory influence on the sanguiferous system lessens the quantity circulating in the capillary system, and thus absorption proceeds rapidly. Now when it is considered that the tissue or tissues from which the dropsical effusion occurs are in a state of inflammatory excitement, and the capillaries belonging to that tissue or tissues are in a congestive state, the process of absorption must be considerably diminished. Hence there must be two morbid conditions present in every case of dropsy, namely

Increased exhalation and diminished absorption.

Etiology — Mechanical obstructions to the free circulation or return of the blood from any particular organ or organs, suppressions of the ordinary secretions from the skin, kidneys &c, disease and loss of tone in the latter organ, profuse hæmorrages, excessive indulgence in spirituous liquors, repelled cutaneous eruptions, particularly Scarlatina and Measles, the influence of cold, venous obstruction producing anasarca of the lower extremities. Dr. Ayre in his treatise on dropsy denies that mechanical obstruction ever has any direct agency in producing Hydropic effusions, when dropsy supervenes on scirrhus of the liver he considers it the consequence of the slow inflammation of the indurated viscus extending to its peritoneal covering and thence along to the abdominal peritoneum. Now Eberle says that it seems more likely that the congestion which necessarily occurs in the portal system in such cases, produce by degrees that irritated condition of the peritoneal capillaries which gives rise to the effusion; but how did the irritation get to the peritoneal capillaries? it must have acted on the peritoneum covering of the liver, and communicated through it to the abdominal peritoneum. Thus Eberle by assuming Dr. Ayre's theory, fails to

explain his own. But that mechanical obstruction can produce dropsy directly, I think can be explained in this manner. When an organ recives an undue supply of blood, the capillary vessels of that organ must be in a state of congestion or inflammation, which inflammation must either end by resolution or effusion of serum. Cold as a direct agent rarely produces dropsy, without there is a predisposition to the disease. The predisposing cause occur more especially in consequence of an attact of Scarlatina or Measles, and particularly after the mercurial excitement, but these affections cannot themselves give rise to dropsical effusions without the occurrence of cold, or atmospheric changes of temperature. All the serous eruptions leave the surface of the body excited and irritable to a great degree, and the cutaneous exhalation is carried on rapidly. Hence decrease of temperature or cold produces its effects by the sedative influence exerted on the cutaneous exhalents, and thus causing there secretion to disappear, by this means producing congestion of the capillary vessels of the contiguous cellular tissue. This tissue being already predisposed to the disease from the previous exanthematous

affection will under the combined influence of cold sometimes take on that state of inflammation bordering on irritation which gives rise to serous effusions. Some writers suppose that it is not improbable that the dropsical effusion is produced in consequence of the inflammation attendent on the eruption, extending directly from the skin to the subadjacent cellular tissue. But that cases of this kind are rare where the patient is properly protected from cold during the paroxysm of the eruption would seem to show that the extension of the inflammation to the cellular tissue does but seldom give rise the disease. That form of dropsical effusion in the cellular tissue denominated anasarca, is the one most commonly produced by cold attended with catarrhal symptoms of an inflammatory character. Where long continued discharges or excessive hoemorrages produce dropsy, there are two modes by which their etiology may be explained. Both anatomists and physiologists have observed a uniform occurrence which takes place when animals are bled to death, that is, that an accumulation of blood always takes place in the serous membrane of some organ, most particularly the meniges

of the brain, - thus in profuse hæmorrage there is an accumulation of blood in the serous membrane of an organ, thereby producing congestion in the capillary vessels of that organ, and thus ending in the effusion of serum. There is another circumstance more worthy of observation, namely, that after excessive loss of blood absorbtion proceeds much more rapidly, so that crude articles taken into the stomach, are at once seized upon by the absorbents and through them into the general circulation, thus by those means increasing the quantity of watery fluid in the blood, which by its irritating effect on the heart and the capillary vessels being dilated to such a degree as to permit the effused fluid to pass of rapidly by the exhalent vessels.

General symptoms. - A dry and rough skin is almost always present, the appetite is usually deficient, except when the disease originated from excessive hæmorrage, when the appetite is sometimes very much increased - in all cases of dropsy the thirst is extremely urgent; the bowels are most commonly torpid but readily moved by the appropriate agents. The pulse is indicative of the nature of the

disease, the renal secretion are decreased and of a morbid character; much attention has been paid lately to the state and appearance of the urine in this disease. The principal point of investigation as regards the nature and character of this secretion is the absence or presence of serum, - It has been observed in many instances of this disease, that is more or less coagulable serum in the urine, whilst in the thissecretion, of others there is not the least sign of coagulable matter to be discovered, The quantity of serum contained in the urine will indicate the degree of inflammatory excitement attending the disease. Professor Potter in his lectures on this disease, says, in all cases where the urine is coagulable by heat the condition of the system will be found to be of an inflammatory nature, and in that variety of the disease depending on diminished absorbtion; where there no inflammatory symptoms the urine will not coagulate by the application of heat, - Dr. Ayre says in dropsies which occur after scarlatina the urine contains a large quantity of serum; in cases which take place from local causes, and in which the

vascular system does not participate the urine contains no serum. But after all that has been said of this secretion and its nature by so many writers, some of whom rely wholly on the appearance of the urine, and in their treatment not considering the origen of the disease direct their agents solely to the kidneys: that Professor Potter calls them "piss doctors", Every case of dropsy must be of an inflammatory nature, so far as to occasion a local excitement which gives rise to the effusion. The general system may not always indicate the inflammatory diathesis, for the local excitement may not be sufficiently intise to influence the heart and arteries, in such, the general circulation is slow and torpid, showing that debility and relaxation which marks the disease. But where the local excitement is great, the heart and arteries receiving the impulse communicated from the over excited organ, we have that manifestation of the system indicating a high degree of inflammation, characterized by the fulness, activity and frequency of the pulse.

Ascites, or dropsy in the abdominal cavity is dependent on mechanical obstruction in some of the viscera, which may by the obstacle offered to the return of the blood producing congestion of the capillaries thus giving origin to inflammation ending in effusion of serum. Whatever has a tendency to produce congestion in any of the viscera may thus give origin to the disease. The abuse of stimulants peritonitis, hepatitis, and in fact inflammation of all the serous membranes constitutes the most essential cause of dropsy. We find in affections of this membrance the surface exhibiting all the marks of inflammation, an injected state of the vessels, chronic thickening, deposits of earthy matter taken place. All causes which give origin to peritoneal inflammation may give rise to dropsy, such as injuries inflicted over the surface of the stomach, translation of chronic diseases, change of temperature, suppression of long standing issues. Diagnosis. There is a condition of the abdomen which is often mistaken for ascites, namely, that enlargement which takes place in consequence of pregnancy. From this it can be distinguished by the sense of fluctuation

the regularity of the tumour, the distention of the lateral parietes of the abdomen while lying on the back, the difficulty of breathing in the recumbent position in consequence of the lower half of the body being raised higher than the head, also by the thirst, urine, and the absence of the cutaneous transpiration which always marks effusion in the abdomen, and by the non appearance of the peculiar symptoms of pregnancy. When the accumulated fluid exists to any great extent we have much pain and disturbance on account of the mechanical irritation which this vast volume of fluid must occasion by its pressure on the different viscera. There must necessarily be a great difficulty of expanding the lungs by which the breathing becomes laborious, and the stomach can receive but a small quantity of nutriment, for its capacity is diminished by the pressure of the effused fluid. The parietes of the abdomen becomes tender in consequence of the yeilding of the fibres of the abdominal muscles. Ascites is rare without producing anasarcous swellings, most commonly diffused cellular effusions sense. The bowels become torpid and the secretion from the kidneys are much more

highly coloured and charged with serum.

Hydrothorax. This form of the disease is most insidious in its encroaches on the system. It can exist for a great length of time without exciting suspicion relative to its true nature, Cullen in his clinical lectures delivered at the royal Infirmary gives the history of a case, which was supposed to be indigestion in its severe form for the space of five years, till accident developed its true character. There is in this variety of dropsy the same oppression of breathing, which we have seen exists in ascites, but in a much greater degree, in fact so intolerable is the difficulty that the sense of suffocating is often experienced, and the patient is obliged to lie with his upper extremities considerably elevated, to allow the pressure on the lungs to be diminished; by this some sleep may be attained, but the slightest exertion so increases the dyspnea and sense of weight about the chest as almost to produce suffocation. In the advanced stage of this disease the pulse is hard and irregular, the thirst urgent, urine very scanty and high coloured. The symptoms are so numerous and well known as to preclude the necessity of my

mentioning them. But the statement made by Baglivi is worthy of attention, namely that the starting in the sleep is one of the most certain signs of this disease. Hydrothorax may occur either as a primary disease or secondary. The symptomatic is the most common form. Organic disease of the heart is the cause most ordinarily producing this variety, chronic pleuritis and a congested state of the vessels of the lungs produce this disease very often. Prognosis. Laennec considers the cause of death from the Idiopathic form as rare as one in two thousand when properly treated. Under the symptomatic form, evacuation of the watery fluid will not lead to the cure of the disease, for the original cause still exists. But writers on this affection give rare instances when it has removed the original disease. Diagnosis. If the effusion has taken place on one side only the patient can lay on that side alone, cough, sense of suffocation when pressure is made below the ribs so as to push the viscera against the diaphragm. If with these symptoms we have starting in the sleep, tinitus and an irregular pulse, œdema of

the feet, agitation and sense of suffocation when assending an acclivity we may at once come to the conclusion that there is effusion in the cavity of the thorax.

Anasarca, This variety consists in a morbid collection of serous fluid accumulated in the subcutaneous cellular tissue. Diffused in some cases over the whole surface of the body. The most ordinary sign by which this form may be distinguished, is the edematous condition left by pressure of the finger, effusion in the cellular tissue generally commencing in the feet and legs and thence rapidly spreading in some cases over the whole body. This form of the disease is the one most commonly connected with a sluggish and torpid state of the circulation, and this is the variety which is apt to take place from excessive loss of blood or other debilitating causes. When simply arising from abdominal or thoracic effusion it is more frequently removed than any other form. The more rapidly according to Eberle the disease supervenes, the more easily it is removed. The causes giving rise to this form are the same as before mentioned in the other varieties.

Treatment of Dropsy. According to the principles of pathology laid down. The first plan of treatment would be to subdue the sub inflammation of the organ or organs affected, And secondly to promote absorption and the removal of the exhaled fluid. The first of these general indications are to be accomplished by lessening the force of the circulation and relieving the congestion of the capillaries, and thus equalizing the circulation. The next general indication is to be fulfilled by promoting the activity of the various organs concerned in serous secretion. Secondly by decreasing the quantity of blood circulating in the venous structure of the part from which the dropsical fluid is poured out. Thirdly by arousing the activity of the absorbents. It has already been shown that by decreasing the general circulation we lessen the quantity of blood in the veins. And it has been found to be a fact, that by diminishing the amount of fluid in the venous system, absorption is materially increased. And thus ~~thus~~ we account for the great benefit derived from bloodletting in this disease. We cannot diminish the excitement in an organ by local bleeding, if we allow the general circulation to remain

undiminished. Muscular debility according to Eberle does not constitute any objection to bloodletting, provide the pulse be active, tense, or hard and frequent. The arterial may be irritated to vigorous action, whilst the muscular system manifest langour and debility. Local bleeding may be employed where the inflammation is local without producing excitement of the general circulation. Blisters have been used in Hydrothorax and ascites with great success, but their use in anasarca or when there is anasarcous effusion, is attended with some risk of mortification. Issues, Seatons and the Tartar Emetic Ointment have been used with advantage in Hydrothorax. The application of leeches and cups to the surface of the thorax have been found to be of essential service. Cathartics have been recommended in this disease from the time of Hippocrates. They have been held in high respect by a great many writers on this disease; but some evidently attach too much benefit to them to the exclusion of in some cases more valuable agents. Hydragogues are more serviceable in cases of abdominal effusion, for the morbid state of the peritoneum is more directly and powerfully

affected in consequence of the contiguity between the peritoneal covering of the abdomen and the mucous membrane of the bowels, than upon the more distant part which may be the seat of the disease. Cathartics are fequently benificial in every form of this disease. There has been cases related where the affection was cured by the use of these agents alone. There has been considerable doubt among practitioners which of this class of agents are the best suited to the ~~the~~ disease. Most writers on the subject give the preference to the Hydragogues, or those which give rise to watery stools. But when these articles are very violent in their nature, which many of them are exceedingly so, they give rise to a morbid state of the intestinal tract, which ends in subinflammation of their mucous coat, by which these watery discharges take place not in consequence of the effused fluid, but from the mucous coat of the intestines. The Super Tartrate of Potassæ the fashionable cathartic as Cullen calls it. has been highly recommended as an article which will produce a discharge from the bowels, and at the same time increase the secretion from the kidneys. The common prescrip-
-tion

-tion of the day is the following. ℞ Crem-tart ℥iss ℞ sulph-potass ℥ss ℞ cilla martim ʒii ℞ tart antimonii ii gr ℞ a tea spoon full from a fine times daily.
Elaterium has also been recommended as another very valuable Hydragogue, but the violence of its operation is such as to make practitioners very cautious how they administer it. I have seen it administered while student at the Maryland Hospital but with very little success. The Gamboge has also been given in this disease and it seems with considerable success, it is usually administered in combination with some other article. It appears to me that Cathartics have been too indiscriminately given, particularly those of so drastic a nature as the two last. No attention being paid to the state of the alimentary canal at the time of the administration of the remedy, giving rise as they do in some cases to violent inflammation of the intestinal coats, or extending by contiguous sympathy to the peritoneal coat of the abdomen; lighting up an excitement by this means, which is extinguished but with the death of the patient. The combination which is generally made is Crem-tart ʒi to Gamb two to four

grains. Diuretics. Are the remediate and most generally employed agents, which we depend on for the cure of this disease. The kidney is the organ most direct and manageable as an outlet for the effused fluid. And the treatment depends on exciting the renal emunctories to increased action. It has been shown that an inflammatory state of the system opposes the operation of diuretic remedies, then bleeding and purging is indispensably necessary. When the blood is drained of its serous portion, and the effusion is extensive it is difficult to get these remedies to act, hence the benefit of diluent drinks. Cases are on record where the disease has been cured by the administration of these articles. The use of diluent drinks in dropsy has caused a great deal of dispute among writers on the subject; whether the patient should not wholly abstain from the use of liquids, or on the other side he might not take them ad libitum. Now it appears to me that the intermediate course would be the one best to pursue, to allow sufficient to allay the thirst. If the desire for drinks is intense, why not allow the super-tartrate of potash made into a weak solution, which satisfies the thirst, is pleasant to the taste,

and also acts as a diuretic. But in cases of dropsy from Hæmorrhage when the blood is deprived of its crassamentum, the use of fluids would be detrimental by diluting the blood already too much so. The diuretics most commonly employed are Scillæ maritima, digitalis, acetate of potash, nitrate of potash, cantharides, juniper berries, colchicum, spt. turpentine erigeron heterophyllum and parsley. Squills is never to be administered till the inflammatory symptoms are reduced, it is a principal remedy in Hydrothorax, this article is generally combined with some other, calomel is perhaps the best.

℞ cal v grs. Pulv scillæ ʒi. Nitrat potassæ ʒii.
M divide in ten equal parts. S give one every four hours. The addition of a grain of opium for the purpose of quieting the irritation the squills may have produced. The Cal acts by determining the circulation to the salivary glands of the mouth, causing a derivation from the exhalants of the pleura and lessens the dropsical exhalation, excites the urinary discharge, and thus promotes absorption. The squill is useful on account of its expectorant effects. The Nitrate of potash has both a diuretic and diaphoretic effect.

Digitalis. This article is one which appears to suit better where there is considerable phlogistic diathesis, than where the system is much reduced. According to Blackall digitalis is more suited to those cases of dropsy, where the urinary secretion is very scanty and coagulated by the application of heat. This agent is very seldom employed alone but is generally combined with squills or nitre. The dose is from one sixth to a fourth a grain, till its peculiar effects are produced, cantharides are also employed. Their action is to stimulate the kidneys to increased vigour. The following formula has been recommended

℞ Pulv cantharidis ℈ ii

Amyl dulc ℥ i

Sacch Alb ℥ iss M 1. ℥ i 3 times daily untill symptoms of strangury supervene. Colchicum. Has lately been used according to some writers with considerable benefit, Dose, the vinous tincture is given in the quantity of forty drops every six hours. Nitras Potassæ is more employed than any other remedy. It may be combined with every diuretic article to advantage. There are a number of other remedies which have been used in this disease. The Gallium

Aparine. This remedy is highly approved of by Professor Potter, who has used it with great benefit; also the daucus carota, erigeron heterophyllum was the favorite remedy of Dr. Wistar. Diaphoretics. are very useful when there is a dry skin attended with decrease of the cutaneous evacuation. Antimony constitutes one of the most important of this class of remedies. Sydenham used it in this affection, although he went to the extent of exciting vomiting, an effect which sometimes produced the speedy absorption of the effused fluid. But the general employment of this remedy is as a diaphoretic. For which purpose it is united with nitrate of potash. Munroe speaks very favorably of the combination of Opium and Antimony when the disease is connected with a rheumatic habit. But it must be remembered that when the secretion from the skin takes place to a great extent, that from the kidney must be proportionably decreased. Mercury. The greatest gift to mankind bestowed, and one of most invaluable of all the articles of the Materia Medica, is used in this disease in a great many forms. It may be combined with almost every agent mentioned before. Mercurial friction over the

abdomen in ascites have been used with advantage. Tonics were once used to a great extent in this disease, when the mistaken pathology of the affection was, that it depended on a lax state of the fibres of the arterial coats. Tonics are useless in most cases, except where the long run and debility is great and the system much exhausted, then tonics may become beneficial by the stimulus that they occasion to the general system. The tonics mostly used are the sulphate, carbonate, amoniate and prussiate of Iron. Sulphate of Zinc, and the sulphate of Copper, the ammoniate of Iron is the preperation mostly used in consequence of its not constipating the bowels. But where there is an inflammatory state of the system, or any local excitement tonics are manifestly injurious. To enumerate the different remedies offered in this disease would be useless: for they consist of so numerous a class as to occupy more time than could be devoted to it. We must always suit our remedies to the state of the system at the time of administering them. The application of diuretic medicines to the surface of the skin will stimulate the kidneys to increased secretion. this mode is of

peculiar benefit when there is great gastric irritation. Dr. Gilbert recommend friction with the following fluid. ℞ Tinct Scillæ

Digitalis Tinct

Tem colchic tinct ãã ℥ss

Ol camphorat ℥iss. the friction to be applied with flannel three or four times a day to the chest, thighs, and abdomen; The application of light bandages is of considerable service in some cases. Tapping is necessary when the effusion has taken place to a great extent; but it can never cure the affection when the disease originates from excitement in any organ or organs

An
Inaugural Dissertation
on
Luxation
Submitted to
the examination of the
Provost, Regents, and Faculty of Physic.
of the
University of Maryland,
for the
Degree of Doctor of Medicine,
by
Thomas G. Henry
of Charlotte County and State of Va.
February
1841

In the whole catalogue of diseases and misfortunes to which man is liable, there is none which merits a greater share of our attention and study than dislocations. A dislocation is defined to be the removal of articular surfaces of bones, from their natural positions. From this brief pathology of luxations, any person would at once see how very important it is, for every surgeon, to be accurately acquainted with the anatomical structure of the human body, so as to enable him when called upon, to act with promptness and credit, both to himself and Alma Mater. It is a breach in the animal structure, which above many others ought to be attended to immediately after the mishap, esle the patient will

be a living memorial of the surgeons ignorance or inattention. The following passage from Sir Astley Cooper cannot be too strenuously impressed upon the surgeons mind. "A considerable share of anatomical knowledge is required to detect these accidents, as well as to suggest the best means of reduction; and it is much to be lamented, that our students neglect to inform themselves sufficiently of the structure of the joints. They often dissect the muscles of a limb with great neatness and minuteness, and then throw it away, without any examination of the ligaments, the knowledge of which in a surgical point of view,

is of infinitely greater importance; and from hence arise the nume=rous errors of which they are guilty, when they embark in the practice of their profession, for the injuries of the hip, elbow, and shoulder, are scarcely to be detected, but by those who pos==sess accurate anatomical informa=tion. Even our hospital surgeons, who have neglected anatomy, mistake these accidents; for I have known the pulleys applied to an hospital patient in a case of a fracture of the neck of the thigh bone, which had been mistaken for a dislocation, and the patient cruelly exposed through the surgeons ignorance, to a violent and protracted ex=

tension. It is therefore proper, that the form of the ends of the bones, their mode of articulation, the ligaments by which they are connected, and the direction in which the larger muscles act, should be well understood.
Dislocations like fractures, are divided into simple and compound; simple when the head of the bone does not rupture the capsular ligament, compound when the injury is accompanied with a wound of this description. They have also been divided into ancient and recent, complete and incomplete, primitive and consecutive. But the most important differences are first, with respect to the articulation in which they occur, second

the extent of the accident, third, the length of time it has con= =tinued, fourth, the direction of the injured limb, fifth, whether it is a simple or compound displacement, sixth and last, with respect to the causes which produced it. Every kind of joint is not alike liable to luxation. Common sense teaches us that the vertebral column, is not so susceptible to dislocation, as the shoulder or hip joint. It is not their situation which shields them from external violence sufficient to produce a luxation, but it is their form, mode of articulation, the mas= =terly manner in which they are bound together by broad

and powerful ligaments. and lastly the small extent of motion of which they admit. Displace=
=ment of the vertebral column usually occurs with fracture which sooner or later causes a displace=
=ment of the patients life and body. Sometimes the extent to which a dislocation occurs, occasions, inflamation, with some one or other of its unwelcome consequen=
=ces, and if the head of the bone should fail to induce inflama=
=tion, it will frequently produce Hemephlegia, on account of the head of the bone resting upon some important blood vessel or nerve, thereby injuring the patient seriously if not for life. The length of time a bone has

been dislocated makes a material difference; if the bone has been out of its place a short time it is very easily reduced, but if the luxation has existed many days, weeks, or months, it is very hard to bring back again to its proper place of repose; and sometimes utterly impossible; the bone and the adjacent soft parts having assumed a certain relation, the muscles suit=ing themselves in length, to the unnatural position of the bone to which they belong, will not allow of sufficient extension, to render the reduction possible. In the different kinds of joints there different luxations, accord=ing to the violence of the injury received. The causes of dislocation are

external and internal; a predisposition to this misfortune sometimes exist, either from a natural or accidental cause. The motion which the joint admits of, the extent of the articular surfaces, the looseness of the ligaments, and the formation of the articular cavity, are some of the natural predisposing causes. A paralytic state of the muscles surrounding a joint, together with a looseness of the ligaments, have frequently been the cause of luxation. There are cases reported by Sir A. Cooper of this kind, where the patient can throw the head of the bone out of its socket, at his pleasure, but could not replace it without assistance. Some persons cannot yawn without luxating the lower jaw, and others cannot make a lateral motion with the arm, as in swimming, without a dislocation of the humerus

joints thus easily luxated are much more liable to this accident, than joints which have never suffered from it. Diseases which destroy, the cartelages, ligaments, and articular surfaces of bones, also occasion dislocation

Symptoms of Luxations.

In order that a dislocation may occur, the limb must be in a favourable position for receiving the external violence. If the force be applied immediately over the joint, it is very probable there would be fracture instead of dislocation. In dislocations of orbicular joints, and complete luxations of ginglymoid joints, the end of the disarticulated bone, becomes elevated or depressed, being off of a level with its natural cavity. This readily accounts for the change of length in the limb. Shortening is the change common to ginglymoid joints, and in orbicular joints, there can either be shortening or lengthening of the limb accor=

ding to the nature of the luxation. In almost all complete luxations, the direction of the axis of the limb is much altered, owing to only one half of the capsular ligament being ruptured, as well as from the action of the muscles. Dislocation occuring in ginglymoid joint laterally, the direction of the axis of the limb is not altered, from the total rupture of the ligaments and even a part of the surrounding soft parts. Nor is this alteration observable in incomplete dislocations of these joints, on account of the ~~ex~~ extent of articular surface. But it is very apparent when there is displacement, forwards or backwards, although the ligaments are totally ruptured. The inability to perform certain motions, with a limb is a very sure symptom of dislocation, though there are cases upon record, where there was an ability to move the limb remained for some hours after the occurrence. In elongation of a limb arising from luxation, the muscles belonging

to it, are consequently pressed nearer the circumferance of the bone, which gives the limb the appearance of being smaller than its fellow. The soft parts which surround the joint are also susceptible of much change; for instance when the thigh is dislocated, the head of the bone going inwards, there is a depression upon the buttock, the reverse when the head of the bone is outward.

The prognosis of dislocations is generally favorable though in general every unreduced dislocation deprives the patient more or less completely of the use of the limb; for nature cannot restablish the primitive functions which are lost.

Treatment, the first and most important step is an attempt at reduction, the longer it is delayed the worse it is for both the surgeon and patient. When the patient is very muscular, great force must be applied in order to overcome the contraction of the muscles, and this difficulty will increase in proportion to the length of time allowed to

pass, between the date of the injury, and an attempt at reduction. The chief difficulty in reducing dislocations is the powerful contraction of the muscles. Other causes than the contraction of the muscles impede the reduction of a dislocation. The head of the bone adheres to the surrounding soft parts, and the cavity fills up with new matter, which destroys the possibility of reduction. Constitutional means as well as mechanical are to be resorted to, namely bloodletting, warmbath and nauseating doses. Extension should always be made in the directions of the limb, either by the aid of assistants or by pulleys, the latter I think preferable.

An
Inaugural Dissertation
on
Gastritis
Submitted to the Examination
of the
Provost Regents & Faculty of Physic
of the
University of Maryland
for the
Degree of M D
by
Sam^u A Davidson
of Baltimore
Maryland

Feb 1841

Gastritis

Having frequently reflected on the various diseases affecting the digestive organs, and their important bearing on the system at large:- those reflections are heightened when we find the principal seat of digestion the Stomach, attacked by so formidable an affection as inflammation; The suddenness of the attack in this affection frequently occurring in the prime of health as the Writer can attest by personal observation although he must confess that his opportunities have been rather limited.

This disease has received from Authors the general appellation of Gastritis; which renders it difficult to determine its precise Pathological condition.

By Gastritis I mean to express an Inflammation of the mucous

membrane of the stomach, often involving the submucous tissue, and sometimes the muscular coat. Inflammation of the mucous membrane of the stomach frequently exists in various degrees of intensity, from the most acute to the slightest sub acute form, it may also be chronic. Acute inflammation of the mucous coat is infrequently met with, it sometimes makes its appearance in a sub acute form, but not infrequently assumes a chronic form.

The symptoms of Gastritis, usually commence with a burning sensation in the region of the Epigastrium, which is aggravated by pressure; an inordinate desire for cold drinks which are immediately rejected by the stomach, nausea and vomiting are incessant, the heat over-

the surface is augmented especially over the region of the stomach, while the extremities are disposed to be cold. The Patient frequently complains of sore throat, attended with slight inflammation of the fauces. Singultus is often troublesome. The state of the tongue is not always a correct criterion in this disease. In general it is very red at the tip, and edges; loaded and sometimes very rough in the centre, and towards the root; in long standing inflammation, it presents a red glazed and smooth surface, although I am disposed to believe that this last condition appears more frequently when the intestines are inflamed and ulcerated than the stomach. The respiration is anxious and quick and the patient restless,

Pulse small and the prostration of the vital powers soon become apparent, the countenance is expressive of the greatest degree of anxiety, the individual refines as his situation. Towards the termination of the disease, the features shrink, and the patient reclines on his back. The matter vomited in the early stages consists of the ingesta taken into the stomach, mixed with bile and mucous, but at last the black vomit ensues, which is an indication of disorganization of the coats of the stomach; this state of things is attended with constipated bowels.

In addition to the symptoms above enumerated Professor Potter in his Lectures on Gastritis; in treating of the peculiar form of Pulse differs with other writers

on this disease. In dwelling on the formidable character of this disease, He says such is the influence of this organ over the whole system, that it is dangerous to permit inflammation to proceed to any considerable extent. The pulse in the acute form of Gastritis is feeble low and depressed, the more it is pressed the greater the resistance will be found. An Enteritis may become a Gastritis and vice versa, and as in both we may have peritoneal inflammation; When the intestines are first injected the pulse is small, and depletion by the Lancet is as indispensable in this disease as any other. At first it does not appear to be a disease of ~~low~~ much action. The pulse always rises after bleeding, we must therefore reduce it by the same means.

There are but few acute diseases which so rapidly exhaust the vital powers, and hence it is said the symptomatic fever is of a Typhoid type. It appears occasionally, however that the symptoms are remarkably mild when the disease is the result of mineral poisons taken into the stomach; and symptoms indicating great danger do not appear until within a few hours of a fatal termination.
Mackintosh relates a case, in treating of Gastritis of a Soldier who had taken ~~℥ss~~ two drachms of Oxymur of Mercury, and who died unexpectedly eight or ten days afterwards on a close stool, having been able to get out of bed and walk unsupported.
It has been already stated that the acute form of this disease

seldom occurs, it more frequently exists in a chronic form, and sometimes in fevers. Dyspepsia, and the last stages of Phthisis.

Diagnosis

Acute Gastritis in its most ordinary developed form, can be distinguished from pains arising from flatulency or cramp by the succeeding marked circumstances. In Gastritis; the pulse is small and feeble, tense and quick, and occasionally depressed and difficult to compress affording great resistance; in spasm or flatulent pains it is generally full or nearly natural. In Gastritis violent vomiting often occurs particularly after taking warm drinks. In cramp vomiting rarely takes place, and warm drinks do not readily excite or aggravate it. The pains are seldom of an intermittent character in Gastritis, except immedia

tely after taking cold fluids into the stomach, or for a short time after vomiting, in cramp the pains often intermit for several minutes, independently of the effects of cold drinks, or vomiting. In Gastritis the patient manifests a great disposition to be on his back; and moves his position with reluctance. In spasm he sits up or walks with the body bent forwards, or is constantly tossing from one side of the bed to the other. The pain in Gastritis is burning and lancinating; in cramp it is heavy twisting, aching, and violent. In Gastritis the skin is hot and dry; in spasm it is generally moist and disposed to be cool. In Gastritis the slightest pressure on the epigastrium is attended with great tenderness and increase of pain: In spasm the pressure alleviates pain.

Causes

Substances of an irritating character, taken into the stomach, suddenly suppressed perspiration, over distention of the stomach by stimulating or indigestible food. Sea drinks when the body is heated. The external application of cold, the suppression of habitual discharges, metastasis of Gout or Rheumatism, external injuries. &c

Treatment

From the views already advanced I am led to regard copious venesection one of our most important remedies, at short intervals; topical bleeding by means of leeches, after the violence of acute inflammation has subsided, or when the further use of the lancet may induce excessive prostration, Epispastics are to be employed in obstinate cases; Laxative medicines are of great importance

but it is injudicious to administer them until the violence of the inflammatory action is somewhat subdued. until the irritability is allayed, Therefore it would be proper to evacuate the bowels by means of Enema, as they have no tendency to irritate the stomach. Opiates are highly recommended in this disease, but should be judiciously administered, as they have some tendency to increase the irritability of the stomach particularly during the primary stage of the disease. But after inflammatory action is somewhat subdued by adequate depletion, they may occasionally be given in combination with small doses of Calomel. with advantage. The warm bath and hot fomentations to the epigastrium are means that should not be neglected, it is also necessary to

restore and support the natural
heat of the extremities. Ice water
given in small quantities, often-
repeated lessens the irritability
of the stomach. Mucilaginous
drinks are highly recommended.

An
Inaugural dissertation
On Dysentery
Submitted to the consideration
of the Provost Regents & Faculty
of the
University of Maryland
for the Degree of
Doctor of Medicine
by
Thomas B. Gantt
of Maryland

March 1841

To

Samuel George Baker M.D.,

As a token of high regard and esteem

This Thesis

is inscribed by his

Pupil.

Dysentery.

The name of this disease being derived from δυς, difficulty and εντερα the bowels, is very appropriate as it points out the seat and character of the disease. It is exceedingly frequent and dangerous in the latter part of Summer and autumn, and frequently prevails as an epidemic in Malarious districts, at the same season of the year, that Intermittent and Remittent fevers prevail — arising from the same predisposing causes; hence Malaria is one of the remote causes in such situations.
From its often appearing epidemic, it has been considered by some contagious, but it only becomes infectious in the same manner as other autumnal diseases do, viz by neglect of cleanliness, impure air, crowded houses, especially where they are ill-ventilated and the effluvia from the evacuations and other impurities are retained. It will, therefore, be well that no excrementitious matter should remain in the sick chamber, which should

be kept clean and freely ventilated. As regards the contagion of this disease, I am not positively prepared to speak, but from the slight insight which a few occasions have thrown upon my observation and from the opinion of our learned Professor, drawn from a close and accurate research in the nature of Diseases, whose authority I shall always appreciate, I would presume that it was non-contagious: even Armstrong himself is in doubt when he thus expresses himself "If dysentery arise from a common occasion it is not contagious, when it arises from a peculiar occasion as malaria or marsh-effluvia I will not positively affirm that is not contagious. I feel that I require to pay far closer attention to it than I have hitherto done, before I can take upon me, unhesitatingly, to say that it is or is not contagious"

Symptoms —— This disease is often ushered in with symptoms resembling those of common diarrhea, the evacuations being fluid and copious, sometimes mixed with a little blood.

As the disease advances, the symptoms increase in violence — great uneasiness in the stomach violent griping pains in the intestines, called tormina, followed by tenesmus or a frequent desire to evacuate the intestines, take place. The disease comes on sometimes very suddenly with fever preceded by a chill, with bloody and mucous discharges, with little or no fæcal matter, in violent cases, and sometimes with blood alone. The tenesmus is the most constant and distressing symptom and the tormina more particularly distressing just before going to stool. There exists soreness of the abdomen, which increases under pressure. Sometimes the fever is mild, but more frequently it is of a high inflammatory or low typhoid character. The heat of the body is not higher than usual except over the abdomen, and the extremities are sometimes, below the natural temperature — The skin is always dry — the tongue is at first white, but becomes brown and dry as the disease advances — the urine high-coloured and small in quantity.

In some cases the appetite remains, but if he takes any thing to eat it is soon evacuated undigested. If the disease is not checked by medicine, and if nature fails in her efforts to restore the system, the patient is soon reduced — his strength is lost and is unable to obey the distressing calls to stool and he passes them involuntarily in bed, his spirits become greatly depressed and his pulse frequent and small and at last sinks — a cold clammy sweat comes on which is the signal of death. Sometimes some difficulty may arise in distinguishing Dysentery from Hæmorrhoids; but they may be designated by the fact that in Piles the blood is first evacuated and then the fæces; whereas in the ~~latter~~ former the fæces precede the blood.

Causes of Dysentery —— Heat is the remote cause of this disease and it is sometimes produced by the double remote cause of Heat and Malaria. It has generally been ascribed to Malaria, independently of Heat; but that heat is the remote cause of this

disease is proved by the fact that the disease is produced in places where malaria does not exist; and we find to this same cause heat exerting a powerful influence on the Liver, and consequently that viscus is connected with the existence of the disease, sometimes. There is a variety of causes which excites this disease, when the system is under the influence of the predisposition, such as Cold, unripe fruit, bad diet &c. Heat, as a predisposing cause of Dysentery seems to act on the System in the following manner. During the continuance of warm weather the blood is invited, by the heat and relaxation of the vessels, on the external surface of the body to flow outwardly. And the internal large vessels are left in a state of emptiness and relaxation. By this means they are weakened and become more susceptible of the operation of stimuli applied to them, or in other words their excitability is accumulated; so that very slight causes will produce the disease, such as alternations from heat and cold, which

The predisposition seems to exist in some persons more than others. It sometimes (i e Dysentery) occurs as a vicarious discharge and relieves inflammation in some other part of the body.

Pathology – The proximate cause of this disease was considered by Dr Cullen to be "a preternatural constriction of the colon occasioning those spasmodic efforts which are felt in severe gripings, and which efforts propogated downwards to the rectum, occasion the frequent stools and tenesmus" and he asserts further, "that it is certain that hardened fæces retained in the colon are the cause of the griping, frequent stools and tenesmus" And it was believed that dysentery depended on the irritation caused by scybalæ or hardened fæces retained in the large intestines; hence strong purgatives were administered to evacuate them which added greatly to the disease, by causing the muscular fibres of the intestines to be thrown into violent and painful contraction. But these false theories and the fatal practice founded on them, like many

others in Medicine are now exploded by the light of pathological Anatomy; and Dysentery is now known to depend upon an inflammation in the large intestines, affecting the mucous coat of Colon, Cæcum and rectum and in very violent cases all the coats of the intes-tines except the serous and terminates, then in ulceration and sloughing. The small intestines are generally in a state of health though sometimes they are found to be inflam-ed and in severe cases the Stomach also; but these are of rare occurrence and hence we place the seat of the disease in the large Intestines. The Liver is often in a state of congestion and its function deranged; and when it is produced by the double remote causes, Heat and Malaria we find it invariably the case.

Treatment of Dysentery — This disease may be cured by different means, and to treat it successfully attention must be paid to the cause and variety of the disease and the type of the attending fever.

The disease may be divided in three varieties and treated accordingly. First when it is accompanied with little or no fever, commencing with languor and nausea and the Liver is not affected or very slightly, with pain in the bowels and tenesmus; — in the beginning of such a case an emetic or emeto-cathartic may be given with advantage. The patient may take a wineglassful of the following mixture every hour until emesis & catharsis are produced; —

℞ — Tart. Ant et Pot sp. grs iv
Sulph Magnesiæ ℥ij
Aq. Tepid. ℥ij M

If there is much tenesmus and pain an anodyne may be given. Opium may be given when there is no fever and if there exists fever it may be given in combination with small doses of the Prot. chlor. Hydrarg., which makes the Opium much safer; but in mild cases there is no necessity to administer Calomel. If the pain and fever continue, cathartics of the neutral salts should be repeated

every second day so as to keep the bowels soluble and evacuate the acrid contents of the intestines. The Sulph. Magnes. is a medicine of great importance in this disease, as it not only evacuates the intestines but acts locally on them, producing a large secretion and thereby lessening the inflammation, and also reduces the action of the heart and arteries. The Oleum Ricini, which was formerly so much employed in Dysentery, seems to produce an irritation on the mucous glands in the intestines.

Emetics are, by some, highly recommended in the beginning of mild cases, where there is not much irritability of the stomach and when the tongue is not dry and furred and the abdomen not hot and tender, when there are also nausea and retchings and there exist putrid or indigestible articles in the stomach. When there exist fever and much soreness of the abdomen, with a dry and furred tongue, the

treatment may be commenced by bleeding from the arm or the application of leeches to the abdomen, which will be sufficient when there is not much general excitement, followed by grs x of Calomel, and if it fail to produce free discharges of faeces, mixed with bile and mucous, we should follow it with a small dose of Sulphate of Magnesia or if there should be great irritability of the stomach an enema may be given instead of the salts.

The second variety of this disease is that produced by the double remote cause Heat and Malaria, which is a bilious remitting Dysentery, in which the Liver is in a state of Congestion, and is only cured by blood-letting and Calomel. Astringents and Stimulants are, of course, inadmissible in this form of the disease. A liberal use of the lancet followed by Calomel may be had recourse to. After the high inflammatory excitement has been subdued by these means, leeches or cups may

be applied to the abdomen to lessen the pain and tenesmus. After this calomel may be given every three hours in the following formula,

℞ Prot Chlor Hydrarg. ℈j
Pulv. Ipecac. ℈ss.
P. G. Opii ℈ss
Ft in Pill. No XX
One every 3 hrs,
vel
℞ Hydrarg. Massa ℈j
P. Opii — grs iij
Ft in Pill No vj.

One of which may be given every three hours In this stage great benefit will accrue to the patient from a few hours sleep which may be produced by the following enema;

℞ Tinct Opii — ℥j
Amyli — ℥ss
Aq. fervent. ℥viij Ft

Leeches have far greater power than cupping in reducing inflammatory action,
The indiscriminate uses of Opium, Rhubarb

and astringents, which always render the disease worse, when given in the heigth of the disease; increasing the pain and fever, and which have therefore been the cause of much unsuccessful practice and fatal terminations, should never be given until free evacuations have been premised. Astringents may stop the disease, but as soon as the patient indulges in eating, the disease will frequently be renewed with increased violence and Mortification terminates his existence. Calomel should be continued until the Liver is exonerated and the healthy secretions of the intestines are restored; but it be seldom necessary to continue it until ptyalism is produced.

The third variety of this disease is that of a low typhoid type, in which there is great languor of the vital offices — with a weak, frequent pulse, black tongue &c, which occurs in Jails and in damp filthy places and is sometimes produced from the preceding varieties not being freely evacuated. In Inflammation of the Intestines there is always a

tendency to prostration and a typhoid condition of the whole system. In some cases the disease progresses gradually and the patient may seem to be doing well, when the disease may suddenly assume a violent and dangerous aspect and then the patient requires prompt treatment the patient passes his stools involuntarily in the bed, extremities cold, pulse frequent and feeble and the tongue dry and black. In such cases the patient may not, probably, be able to bear an evacuation; but if his strength permit he should be leeched and evacuated. But here the principle treatment is to support the patient by the administration of wine, mutton soup, beef tea &c. A blister may be applied over the abdomen and we may give astringents of which the Tinct. Kino & Opium and Acet. Plumb. are the best. Anodyne and astringent injections may also be given. Here the Pulv. Doveri may be given with advantage, in full doses and if the patient sustain an evacuation Rheub and may be given, as it clears out

the intestinal canal, and by its astringent properties has a tendency to put a stop to the frequent evacuations. In every stage of the disease the patient should partake freely of mucilaginous drinks, such as Barly Water, flaxseed tea, a decoction of the Slipery Elm bark, a decoction of the rubus Villosus or Black berry root, a mucilage of the Bene leaf &c. During Convalescence the patient should be very cautious as regards his diet, which should consist principally of Arrow root (any preparation) Rice, boiled milk, mutton soup beef steak &c—

An
Inaugural Dissertation
on
Inflammation
Submitted to the examination of the
Provost Regents and Medical faculty
of the
University of Maryland
for the
Degree of Doctor of Medicine
by
Philip R. Edelen
of St. Marys County and State of Maryland
March
1841

3

To Professor, W. P. Baker

Inflammation

There is no part of the human system that under certain circumstances is not liable to attacks of inflammation.

Inflammation from the symptoms manifested may be divided into acute and chronic; acute is characterised by more intense pain heat and throbbing: chronic inflammation has generally attending it heat, and but seldom any throbbing and but little pain, but general soarness and particularly when subjected to pressure. it is more frequently the consequence of acute inflammation. Inflammation is also termed healthy and unhealthy. Healthy is that which causes the reunion of fractures, the adhesions of wounds, and healing of ulcers. It is termed unhealthy when it is carried to a degree beyond that, which is requisite for

such purposes. The strongest and most unequivocal sign of inflammation is redness, though it is asserted by some to be absent in inflammation; but to this opinion I am unwilling to subscribe. I cannot believe that there ever was any point of really established inflammation where there did not exist redness to a more or less degree, and this opinion is founded upon the phenomena exhibited by post mortem examination. Those parts which during life were in a state of inflammation, and which grade of inflammation was so intense as to cause the death of the patient; after death manifested the strongest symptoms of inflammation. Indeed when inflammation of any organ has been of so high a grade as to cause the death of an individual there are always the strongest marks of inflammation after death, such as ulceration, mortification, and in many instances entire destruction of some part of the organ. They who differ from me give as an instance of inflammation without redness the appearances of the arachnoid and other mem-

by the larger arteries sympathising with the capillaries of the affected part, and thereby having their action increased. I, therefore, think, that this throbbing is dependent upon the want of the equilibrium of the circulation, and as soon as that is restored the throbbing ceases, that is, after the capillaries have received as great a quantity of fluid as the capacity of their coats for dilatation will admit of, for we see that when the inflammatory action is very high, and an organ very essential to life is the seat of inflammation that the whole circulatory system is distended, and consequently the sympathetic excitement of the constitution; and that after the inflammation has become established in some part, the violence of the symptoms abate to a considerable degree. The question whether swelling, as a symptom of inflammation is always present during inflamation has been for some time a point of considerable discrepancy of opinion, but for myself I do not entertain the least shadow of doubt with regard to this question, and, therefore,

assert that I do not believe that there ever was, or ever will be any point of established inflammation that was not attended with enlargement to some degree. In the first place, what causes the swelling and redness at any time of inflammation? a mechanical injury may have been inflicted upon a part, and the capillaries of the part in consequence of the injury inflicted may have become debilitated, and are therefore no longer able to resist the force of circulation. The action of the heart and arteries is increased and a fluid greater in quantity and somewhat different in nature from that which they received before, is propelled to the inflamed part. And I might ask how do the red globules of blood enter those minute vessels? In consequence of their coats being debilitated, dilatation takes place in obedience to the force of the circulation, and since they dilate, must not the parts surrounding them give way for their ditatation. This is what I consider the true cause of inflammation, and consequent

swelling. The opinion that swelling is caused by the effusion which takes place in the surrounding tissues, on the part of the vessels to relieve themselves, no one can doubt, but that the swelling is dependent upon this wholly, and does not take place until the effusion takes place, as is the opinion of some, is by no means correct, for a considerable degree of swelling takes place in consequence of the mere dilatation of the vessels themselves, before they have emptied themselves. The extent of swelling is in proportion to the degree of resistance offered by the surrounding parts. The nature of the effusion varies according to the degree of inflammatory action, the higher the action, the greater is the quantity of blood effused. The inflammatory action may be increased in consequence of too great a resistance being offered by the celular tissue, both vessels to relieve themselves of the accumulated fluid, which being there as a foreign body adds to and keeps up the irritation. The effusion which takes place in the common cellular tissue is generally bene=

ficial, but if it should take place in any vital organ, it is very apte to be attended with the most disaterous consequences, endan-gering the structure of the organ, and in ma-ny instances, causing entire destruction of its functions. It is said, that in inflam-mation the action of the exhalants is in-creased, while that of the absorbants is di-minished. The power of the former may be in-creased, and those of the latter remain in their natural state; and in consequence of an in-creased quantity of matter being thrown out, are unable to take it up with sufficient rapidity. Pain has always been enumerated among the symptoms of inflammation, but it is not by any means to be considered as indicative of inflammation in every case, nevertheless, it is present in the majority of cases, and particularly in the first and se-cond stages of the affection, there is generally a cessation of pain after suppuration has ensued, though it may be kept up and increas-ed if an egress is not given to the contained matter. And

this affords an instance in which pain on the other hand, is not to be relied on as a symptom, as some maintain always indicative of the presence of inflammation, for we see so soon as the matter is discharged, that there is an immediate cessation of pain; but deep inflammation yet exists; and as is manifested by inflammation in some internal organ, such as the stomach, liver, and lungs; in which organs it may assume the chronic form, and continue for weeks, and even months, and commit its ravages, and may cause almost the entire destruction of these organs, without being attended during the greater part of its course, with the least pain whatever. I, therefore, do not think that pain is an unequivocal symptom of inflammation. The phenomenon of pain in my opinion may be explained upon the fact, that the vascular and nervous systems, are so intimately connected in every portion of the whole body; are enveloped with the same sheath; and the function of each dependent upon

the reciprocal influence of each other. So that this increasing is caused by an unusual compression made upon the nerves, accompanying the highly excited arteries; this impression being conveyed to the brain, is then perceived by that organ, whence it is reflected to different parts of the system, and hence the constitutional affections of a local inflammation. Heat is considered as an unequivocal symptom of inflammation, by some of the most distinguished of the Profession, but, I have heretofore expressed my opinion with regard to it, as an unequivocal symptom, and heat therefore, according to my opinion, cannot be the only one, and it is not by any means a constant one, though it is more frequently present, than absent, and I think it is always present, and greater when there exists general fever, the consequence of a local injury. For the most ignorant know that fever is produced by such a cause.

Heat is said by a very distinguished author to be rather a sensation, than an increase in

temperature, that is, it is not dependent upon an increased temperature. I should like to know what he means by this, for he gives an effect, without a cause; and might just as well say, that a common fever takes place without any cause, and that a man walks perfectly independent of any muscular power. Now what is the cause of this sensation? It is the increased temperature of the affected part, and the sensation is produced by this cause, and is translated by the nerves to the brain, where this sensation is perceived, and it is by this means, and this only, that we are apprised when we have received a sufficient quantity of heat, to render our=selves comfortable, and which causes us to remove from the source of heat; and if such were not the case, we would always be liable to serious and fatal injuries. The effects of inflammation upon the constitution, al=ways are in proportion to the violence of the inflammation, the power of the exciting cause, and agreeably to the vitality of the parts affected,

for the more is the part essential to life affected, the greater will be the shock inflicted upon the general constitution. Symptoms indicating the constitutional affection, are a general diminution, or a partial suppression of the secretions, and excretions; and hence the dry and hot skin, great thirst, scanty and high coloured urine, and the dry and frequently foul tongue, the torpor of the bowels, and the strong and full pulse. In very violent cases, the sensorial power is also much impaired. It is said that the system sympathises much more with some parts, than with others; this is certainly the case; some parts may have sustained a severe injury, and be followed by violent inflammation, without affecting but, to a very slight degree the constitution, while there are other organs whose functions and structure may be but slightly injured, and nevertheless, inflict a severe shock upon the system; this is, as I before said, dependent upon the vitality of the organ which is the seat of the disease, so that we cannot in all cases judge

correctly of the degree of inflammatory action from the constitutional symptoms. Inflammation, and irritation, have been by some, confounded together, without shewing a correct distinction between them, and that where there is irritation, there must be inflammation, this is more frequently the case than otherwise, and although inflammation in all cases wholly depends upon irritation, the latter may exist for a certain length of time without the superventeon of the former; for irritation is strictly confined to the nervous system, and inflammation to the vascular system. They, therefore, both cannot be brought into play at one and the same time, though irritation cannot exist but a very short time, without the occurrance of inflammation, and may be suspended before, the occurrance of inflammation. Irritation may be local, and constitutional. Local, by any mechanical

injury being inflicted upon the part, as for instance, the irritation caused by diseases, worms &c. Constitutional irritation may be the consequence of a local irritation or the consequence of a debilitated state of the system from some previous disease. Irritation, though apparently trifling in some instances, is nevertheless, followed by great constitutional disturbances; such as from amputation, and the introduction of the bougie, the latter of which frequently causes syncope. Therefore, to form a correct prognosis of inflammation, we must be guided not by the violence of inflammation alone, but also, and principally by the importance of the organ which is the seat of disease.

Cause of inflammation. There is no point connected with the subject of inflammation, nor do I think there can be any within the sphere of the medical science, that has given rise to more frequent, and warm discussion, and has opened to

us a more extensive field for the skill full research, and grand discoveries, than the cause of inflammation. Considerable discrepancy of opinion yet exists, with regard to the state of the vessels in their healthy and excited state. In the first place; many different opinions are entertained concerning the relative share which the heart, large arteries, and capillaries possess, in propelling the circulating fluid when in a state of health. Some Physiologists maintain the opinion, and which I shall at once pronounce to be erroneous; that the circulation throughout the system is exclusively dependent upon the power of the heart. Now, if this be the case in health, we must suppose it to be in disease; and that this is not the case, and that the arteries are possessed of a muscular coat and consequently a contractile power; I will endeavour to prove. In the

first place, I believe that it was the will of Providence that any and every organ in the human system should be endowed with a power to relieve itself, of any disorder with which they may be assailed, for the welfare of the animal economy; and if such is the case, which no reasonable man can doubt, why do they deny that the capillaries are possessed of a muscular coats, for we see instances every day in which the proof of their contractile power is manifested, and this could not be the case, were they not possessed of a muscular coat. The manner in which inflammatory action is subdued, and the mode by which the effusion takes place in cases of inflammation, are sufficient proofs of their contractile power, and again, how is it that the blood flows in a direction so diametrically opposite to that of its own gravity, for I cannot believe with some that

the heart does in the least degree perform the office of suction. We find by diminishing the quantity of blood in the system, that all the symptoms of inflammation begin to abate, which were kept up by the increased quantity of blood, which was there any obstacle to the free return of the blood from the inflamed part, and therefore, by partially vacuating vessels in the neighbourhood of the inflamed part, they are almost immediately filled again; by the fluid of that part being forced out by the contractile power of the vessels therein, we see blood poured out from small arteries in the commencement of a surgical operation, and for a considerable time; does this not depend upon contractility? Again, if the circulation is solely dependent upon the power of the heart, upon what does the circulation depend, in those animals which have no heart, some human monsters have been known

to be born and live for some time without hearts, must not the circulation in them depend upon the power of the arteries.

The assertion that the circulation is dependent upon the heart is as absurd as the theory is unfounded.

The causes of inflammation are various. The immediate cause of inflammation, may be mechanical injury inflicted upon any part, and injuring the vessels of that part, thereby debilitating those vessels, which debility is followed by irritation, and consequently inflammation, local inflammation may be caused by this, and many other means, such as irritating applications to the external surface.

Constitutional inflammatory action, may be brought on sympathetically by local inflammation.

The true theory of inflammation, is therefore, I think, dependent upon

a debilitated state of the vessel, in consequence of an injury inflicted, which renders it unable to resist the power of the heart and larger arteries, and consequently they expand for the ingress of a fluid increased in quantity, and altered in colour; and hence the redness and swelling.

Chronic inflammation, is a term used to designate that which is slow in its progress, and may exist for a considerable time without doing violence to the parts subject to its action, and without manifesting any very prominent symptoms. It is not to be considered to be the consequence of acute inflammation exclusively. It may be brought on by some agent whose power is less than that required to cause high arterial action, and by the repeated action of such an agent may steep up inflammation, without manifesting any very prominent symptoms.

Inflammation may likewise be brought on by cold, by its debilitating influence upon the system. Inflammation is said to terminate in resolution, suppuration, and mortification, gangrene &c. But those are rather injudicious terms, for either of these Phenomena may occur without the suspension of inflammation in the immediate neighbourhood of the part, though suppuration is generally a favourable sign, if we cannot suspend inflammation without it; that is, in resolution. Adhesion is also another termination of inflammation, though I do not think it is wholly dependent upon inflammatory action, nor do I think, it occurs after, until the inflammatory action has greatly subsided. Mortification is caused by so high an arterial action as to cause the death of the part.

In the treatment of inflammation, we must inquire into the cause. Thus

foreign bodies are to be removed, and fractures, relieved, and unnatural accumulation of fluids withdrawn, and according to circumstances, local and general blood letting, must be resorted to. Local applications, such as evaporating lotions, internal remedies, tonics or sedatives, such as circumstances may demand, and keeping the bowels soluble by purgatives, if the digestion organs be not the seat of inflammation, if so, injections must be substituted. Mild and degestible diet, and rest, must also be be strictly enjoined.

— I am

Yours very respectfully
Philip R. Edelen

An

Inaugural Dissertation

On

Ulcers

Submitted

To the examination

of

The Provost, Regents & Faculty of Physics

of

The University of Maryland

For

The degree of Doctor of Medicine

By

Elisha B. Pendleton

Berkley County

Va

February, 1841

10

Ulcers.

In casting around me for a subject, upon which to write an Inaugural Thesis, my first object was, to single out one, from the long list of ills which flesh is heir to characterized both by simplicity and importance. Neither the one above selected partakes of the former of my divisions I begin to entertain no little doubts; but having had frequent opportunities of witnessing the disease in many of its various forms, especially as it affects the lower extremities — to which situation of ulcers my remarks more particularly have reference — I feel emboldened to persist in my selection, however intricate I may find the path —

Of the importance of this class of diseases I presume there can be no question. Yet, notwithstanding this known and admitted importance, I think I may safely assert that there is no disease in the 'black-lettered list', which the surgeon is so willing to pass by, unnoticed, and leave the curative means, which

he alone should employ, in the hands of some 'old village matron'. Whether this unfortunate negligence arises from the apparent absence of the necessity for the employment of scientific means for the cure of the disease, or from the loathsome condition in which ulcers are usually found in the lower classes of people, and thus increasing the latent repugnance of the surgeon and thereby influencing him to extend this repugnance to all the walks of life, I am unable to say; but such is the fact and the disease is often passed by, without paying it the cold respect of a passing glance.

I have not chosen the subject because I expect to offer anything new, either in its divisions or treatment; but simply for my own improvement, and the rectifying, so far as I am concerned, the neglect which I have, prior to my residence in the Balt. City & County Alms-House, too frequently, unfortunately, witnessed. I have seen physicians in the County,

physicians too of no mean standing, who would consider it almost an insult – if a patient were to request them to drop a 'corn' or apply a roller. Then, at the same time I have been convinced that if the attempt had been made they could not effect the adjustment of the latter with any degree of advantage – 'True greatness is displayed in small things as well as great' and this applies with peculiar fitness to the honourable profession in which I seek to be an humble labourer.

Before I proceed to the consideration of each particular class – I will remark, that the same cause, may, in different individuals induce either of the forms of ulcers of which I propose to treat. – That is, while in a healthy man, in the prime and vigor of manhood, a bruise would produce a trivial ulcer, if ulcer at all – the same cause acting on a man of naturally bad constitution or one addicted to intemperance, might develope the worst form of irritable or indolent ulcer, more likely, however, the latter.

I shall speak of ulcers under the three following heads –

1st The common simple ulcer, or that ulcer which displays just a sufficient degree of action for its own recovery –

2d The indolent ulcer, which is that class, as its name implies, whose action is 'indolent', weak and exhibits no tendency to assume the action requisite for its own restoration

3d The irritable ulcer. This ulcer is the reverse of the last mentioned class. The action is excessive and altho' granulations are produced, they are not of a healthy character.

It will be perceived that I have not only excluded those ulcers depending on a varicose state of the veins, but all those which depend on some 'specific' cause, as I apprehend that the mere enumeration of all the varieties and shades of differences which exist under each variety, would be sufficient to fill a volume.

The simple ulcer first claims attention. It may be recognised by the mildness of the character it usually assumes, and by its not in the

general, inducing an appreciable degree of constitutional derangement. The granulations are characterized by a healthy, florid appearance, which is attributed to the free circulation of arterial blood in the parts. The pus is of a thick, opaque character of about the consistence of cream, and resembles it in its external appearance more than any thing I can mention. The surrounding parts are in a much better condition than accompanies the indolent or irritable ulcer. When, therefore, we meet with an ulcer thus marked, there can be little hesitation in declaring such ulcer to be in a healthy condition, after we have reached this point in the treatment, by the application usually of the common poultice, which acts beneficially by slightly stimulating the ~~parts~~ granulations, which so soon as they have risen to the edge of the sore or a line or two above it, are to be treated somewhat differently. The poultice is to be laid aside and the surface is to be protected, cleanliness is to be enjoined. All sources of either local or general irritation are to be removed from

the patient. A rather liberal but nutritious diet directed. These are the principles of treatment applicable to the simple form of ulcer as usually met with.

The second class is the indolent ulcer. The simple ulcer, if improperly treated or not treated at all may degenerate into this variety, altho' for the most part, it frequently exists independently much appearing to depend on the habits of the patient. This ulcer is characterised by its glossy appearance, thick and elevated edges. The granulations differ from those in a healthy ulcer, being larger, more rounded and not so firm. Also by the absence of the healthy scarlet hue which usually accompanies the simple granulating surface. When these granulations reach the level of the surrounding parts they fail to form skin, and from their languid, weakened condition are frequently absorbed, leaving the base of the sore exposed and this process is repeated so long as the condition of the sore remains unchanged

It is certain that the situation of a sore influences, in no inconsiderable degree the heal

-ing process. This fact is ascertained from experience. 7.
If a person in bad health should have an ulcer just above the ankle and one immediately below the knee, as his general health improved, under the means resorted to, the surface of the sores will present a better appearance. This change will not be exhibited, however, to the same extent in both. The one nearest the centre of the circulation will take more rapid strides toward recovery, while the other will follow in the same path, but keep an humble and respectful distance. Besides, whatever influences the general health will be reflected on the condition of the sore.

This ulcer is met with in various degrees of intensity and in its mildest form is liable to be mistaken for the simple ulcer. The only manner in which they can, with certainty be distinguished is, the inapplicability of the treatment for the one to the other, - When we bear in mind the changes that are continually taking place between the different forms of ulcers, we can readily imagine why the one should be mistaken for the other. These changes are produced by

-ing process. This fact is ascertained from experience. 7.
If a person in bad health should have an ulcer just above the ankle and one immediately below the knee, as his general health improved, under the means resorted to, the surface of the cones will present a better appearance. This change will not be exhibited, however, to the same extent in both. The one nearest the centre of the circulation will take more rapid strides toward recovery, while the other will follow in the same path, but keep an humble and respectful distance. Besides, whatever influences the general health will be reflected on the condition of the cone.

This ulcer is met with in various degrees of intensity and in its mildest form is liable to be mistaken for the simple ulcer. The only manner in which they can, with certainty be distinguished is, the inapplicability of the treatment for the one to the other, - When we bear in mind the changes that are continually taking place between the different forms of ulcers, we can readily imagine why the one should be mistaken for the other. These changes are produced by

the improper use of the limbs, by improper food, by exposure to cold, by bad treatment, and in short, by any of the thousand agent that will influence the general healthy condition of the patients system.

In the treatment of this class of ulcers, general remedies are as essential as local ones. In fact, the cure can not be cured without due attention to the state of the patients constitution. But whilst we are employing those means which give energy and tone to the system and endeavouring to bring about an altered action in its various organs, by the prudent and careful use of mercury, the free exhibition of sarsaparilla and a generous diet, we are not to lose sight of local remedies, as the one will accomplish little unaided by the other. When however from previous habits general stimulation is to be required, as is often the case in these ulcers, particularly in the illy fed and intemperate class of people, much will be attained by adapting our remedies to the patients previous habits of life. No precise rule on this point can, however, with propriety be

laid down, as I conceive that in all cases it would be proper to supply the particular stimulus to which the patient had been accustomed. This would seem to me to hold good from the fact, that not only are the different stimulants of the Materia Medica endowed with a separate and peculiar action; but that each alcoholic liquor is possessed of an action essentially its own. I will not attempt to account for this apparently unintelligable supposition; but from the known fact that such differences of action do exist, it would appear proper in this case to supply the particular stimulus to which the system had become habituated, instead of that for which it was unprepared.

Having laid down the general treatment in this class of cases we are next to inquire into what our local remedies are to consist.
And first the poultice is to be adopted in order to cleanse the surface of the sore, and after its use for two or three days is to be laid aside and the stimulating treatment resorted to.
Of all the long list of local applications that

have been employed, the Nit. Silver is undoubted-
-ly the best. It seems to act by directly stimula-
-ting the part and thereby causing the gran-
-ulations, hitherto weak and ill-conditioned, to
assume a more healthy appearance. Frequ-
-ently in ulcers of this class, the indurated and
callous edges of the sore do not respond to the
stimulation of the nitrate of silver. Under these
circumstances I have witnessed the happy
effects following the use of the Potassa Fusa,
the most active of the class. From its powerful na-
-ture, care should be observed lest it penetrate
too far. This is easily prevented by applying vinegar
which neutralizes the caustic and any bad
consequences avoided. In the use of any of these
remedies, the proper plan is, in the first place
to employ a weak solution, and gradually to
increase the strength to any degree the case
may require. This should be done, because
the application may be injurious and ulcers
of this class usually lose their susceptibility
to the continued use of any remedy of an un-
-varied strength. Another class of remedies,

which are possessed of caustic properties is the mineral acids. The only one, however, which has been used with advantage is the diluted Nitric acid. The sulphate of zinc in solution is also recommended; also the sulphate of copper. The oxymuriate of mercury (corrosive sublimate) in conjunction with lime water, in the proportion of a grain to the ounce, has been employed as a wash in ulcers of this class. The Ungt. Hydr: Nitratis (citrine ointment) has also been used with benefit as a stimulant and alterative application in those old and ill-conditioned ulcers. These are the local applications which experience has settled upon as the most useful, though there are others which have occasionally been found beneficial. In addition to this treatment the surgeon has still in reserve the roller, which of all others is the most useful. It should be applied with moderate and equal firmness from the foot, if the ulcer is on the leg, until the zone is entirely covered. Adhesive straps are also of great benefit in ulcers of this class.

In addition to the above treatment the patient should be allowed a liberal diet and as soon as his general health will enable him to leave his bed he should be allowed to take exercise, always with the roller neatly and properly applied.

The last division which we have yet to notice is the irritable ulcer. The condition of this is the reverse of that languid and unpleasant appearance which attends the indolent ulcer.

I have stated that the same cause may, under different circumstances give rise to a different condition of things. We can explain this in no other way than by referring it to the influence, which the state of the system exerts over any part of that system. The condition of things which usually produce changes in the character of ulcers is, where the system is thrown into a disturbed state, from exposure to cold, or any other cause, giving rise to disease in some important organ. The irritation in this organ is reflected

upon the weakest point and this point is that where disease already exists. Under these circumstances the character of an ulcer will rapidly be changed, when in the absence of this irritation it would doubtless have been of the simple form.

Ulcers of this class are recognized by the presence of great pain in the part, frequently extending up the limb. The granulations are uneven, highly inflamed and frequently bleed under the most-uninitating application. The discharge is of a thin ichorous character irritating the surrounding parts if by neglect or carelessness it should come in contact with them. The pain is often intense and I have seen an ulcer of this kind inflict as much suffering and distress as almost any case that presents itself for the interference of the knife of the surgeon. When called upon to treat an ulcer, the first object is to ascertain, with as much certainty as may be, to what class the case properly belongs. If the ulcer is of this kind the treatment is much simplified and the case attended with little difficulty by this knowledge. In the treatment of this sort of ulcer we, are in the first place,

to call to our aid all those means usually employed in the reduction of inflammation. The patient is to be kept at rest and enjoined to keep to his bed in the recumbent posture. The limb should be elevated in order to retard the flow of blood to the part. The poultice of whatever kind is to be resorted to,— the carrot poultice is often used with benefit— Fomentations are also to be employed. Under this treatment the ulcer will throw off its hitherto unfavourable aspect. The granulations will discharge a more healthy secretion and the sore will gradually approach the condition spoken of as marking the simple ulcer. The state of the alimentary canal should be attended to, and for this purpose, the best cathartic is calomel in combination with the compound extract of colocynth. If the surrounding parts are to much inflamed, leeches should be applied near the edge of the sore.

There are many ~~are~~ local applications which have been used in these sores. The most important of which is opium. The best mode in which this can be used is the watery solution

by means of lint. I have seen this application of signal service in a case in the Baltimore Infirmary.

The above imperfect remarks pretend to be nothing more than a mere outline of the principles of treatment in the three varieties of ulcers of which I have spoken, much, of course, being omitted, which might, at times be absolutely required in the course of attendance on the disease, and which would suggest itself to the good sense of the surgeon with the case before him

An Inaugural Dissertation on Cynanche Trachealis.

submitted to the examination of the Provost, Regents, & Faculty of Physic, of the University of Maryland, for the degree of Doctor of Medicine.

by

William Henry, Roberts,
of
Baltimore, Maryland.

February.
1841.

To Dr Samuel George Baker

This paper is dedicated as an act of merited justice. I sincerely regret that I can lay no just claim to its being considered as a sufficient expression of the gratitude, I shall ever feel, for the very great kindness invariably shown to.

Dear Sir

Very Respectfully yours &c

Wm. H. R.

Cynanche Trachealis, or acute inflammation of the mucous membrane of the trachea, was but imperfectly described by the ancient authors. Martin Ghisi, gave the first regular history of this disease, in his letters, written in 1749. Twenty years later Dr Home of Edinburgh made it known to the practitioners of England, by his "Enquiry into the croup" published in 1765. We are indebted to Dr Cheyne for the most satisfactory account of the disease that has since appeared, his notice of it was published in 1809 under the title of, "The Pathology of the membrane of the Larynx and Bronchia".

Croup sometimes comes on suddenly; runs its course with violence; and terminates fatally, in thirty six, or forty hours. Usually, its approach is gradual, the first symptoms being those of ordinary catarrh, difficult breathing, dry hoarse cough, change of voice &c being the first intimation of an attack. These symptoms may continue for several days, before the disease puts on its characteristic form, and violence, more or less fever is generally present from the commencement

The respiration soon becomes laboured; the fever increases; the voice becomes indistinct and whispering; and the cough sonorous and ringing. The disease now advances with fatal rapidity, and all the symptoms acquire an alarming degree of violence. The countenance is flushed, the eyes injected and heavy; the respiration more difficult, and attended by a peculiar crowing sound; the skin is hot and dry, the pulse tense, frequent and quick. The cough is sometimes dry; at other times it is attended by a copious secretion of a tenacious fluid in the larynx and trachea, from the commencement of the attack. If the violence of the disease is not checked, the act of respiration soon becomes "inexpressibly distressing" and the countenance and actions of the patient, indicate the greatest degree of anguish and suffering. The head is thrown back, and the mouth kept open, the voice is extinct, the face pale and covered with sweat. The eyes have a most peculiar and imploring look sensibility diminishes, coma ensues, the extremities become cold, and finally death closes the distressing scene.

These are the ordinary symptoms of croup, but much diversity exists with regard to the degree of their violence, and rapidity. In some cases a few hours are sufficient to terminate life, in other cases the disease proceeds more slowly, and is protracted for days and

even weeks assuming a chronic form. The ordinary duration of the disease is from two to five days.

In speaking of the causes of this fatal malady the first in importance, is a congenital predisposition. The children of some families are particularly disposed to attacks of croup, while others are entirely exempt from it. This probably depends on some peculiar condition of the trachea, though it is impossible to say in what this peculiarity consists.

That there is some peculiar condition of the air tube preceding to puberty, is evident from the change that takes place in the tones of the voice. This may or may not be dependent on the size of the aperture.

A still more remarkable peculiarity is the fact of its being confined almost exclusively to children, most commonly between the ages of one and five years. There are however many well attested exceptions to this rule, though Dr Stokes thinks they may all come under the head of what he describes as "secondary croup"

In endeavouring to account for this circumstance we may suppose it owing to the above mentioned peculiarity in the condition of the mucous membrane of the larynx and trachea though of course this is mere speculation and brings us in reality no nearer the truth. Dr Eberle thinks it more readily accounted for by the exposed condition of the throat and breast of children, the present mode of dress not being calculated to protect them from sudden changes of temperature. I cannot think this has <u>much</u> if any influence in producing the disease, for as far as females are concerned they go through life with the same amount of exposure and are no more liable to the disease than males who have their throats well protected. A plethoric habit of body is the most favourable for the development of this as well as all other

phlegmasial diseases, observation going to show that florid robust children are more liable to this disease than those of an opposite character.

Cold is the principal exciting cause of croup it being more prevalent in the cold damp months of spring and fall. It is said to have prevailed epidemically, but it is more than probable this occured after the prevalen of some exanthematous disease some of that class of diseases leaving children peculiarly liable to attacks of croup. Experience proves that persons who have once suffered an attack of the croup, are much more liable to it ever afterwards

Croup is a phlegmasial disease consisting in an inflammation of the mucous membrane of the upper portion of the air tube, though this inflammation frequently extends to the bronchia, producing a complication

of croup and bronchitis exceedingly to be dreaded. In some instances the inflammation terminates after a longer or shorter period in the formation of a false membrane, the duration of this period depends both on the violence of the symptoms and the activity of the treatment. This false membrane is said to consist of a concreted albumenoid secretion. Sometimes the inflammation terminates in the secretion of a purulent matter without the formation of a false membrane. But by far the most common cases are those in which we have neither matter or membrane formed, in these cases the inflammation terminates with the copious secretion of a frothy mucous.

The appearances most frequently found on dissection are congestion of the mucous

membrane of the larynx and trachea. The passage of air being sometimes excluded by a formation of false membrane, the glottis is frequently narrowed by a thickening of its lips. the bronchial cells are sometimes blocked up by a copious effusion; a mode of termination that almost always occurs when the inflammation descends to the bronchia "With regard to the prognosis, croup is always to be regarded as a very dangerous affection and the prognosis "extremely fallacious" Sometimes all the symptoms yield and promise a speedy convalescence, when contrary to every expectation a relapse ensues, and the symptoms returning with redoubled violence, the patient is very speedily destroyed. On the other hand, when hope has ceased, and we are expecting death as the termination of the case; by expulsion of a membrane, the symptoms

are relieved and the patient rapidly recovers.

There are two points to be kept in view in the treatment of croup. 1st To subdue the inflammatory action, 2nd To remove the secretions from the air passages. To remove the inflammation our principal reliance must be placed on the "lancet", general blood-letting must be actively employed, and continued so long as the pulse will justify it. This is the most important indication, and "he who neglects it, can have but little hope of success. Local bleedings are not to be relied on, and even as auxiliaries to the lancet they are of doubtful utility. External irritating applications

have been highly extolled by some authors. and in the single case that makes the sum of my experience I had every reason to be gratified with the result. I should prefer the use of turpentine to any other application. blisters I have seen used but never with any very apparent benefit. Dr Stokes considers them injurious in most cases. they certainly should not be used until after the pulse has been reduced by active depletion, Next in importance to the lancet is the use of large doses of Calomel and Tart Antimony When this combination is given in sufficiently large doses, it is hardly second even to the lancet; In cases where there is but little febrile action, and more especially where the cough is attended early by a copious secretion of mucous

active blood-letting is seldom required and in some cases may be altogether dis=
=pensed with. Emetics are among our most valuable remidies in this disease and can never be altogether dispensed with in its management. In those cases which are attended with a copious secretion of mucous, emetics are especially useful, they not only expel the viscid secretions from the throat, but they equalize the circulation, and promote the action of the cutaneous exhalents. The best emetic is the combination of Calomel and Antimony, in addition to its emetic effect we have the advant=
=age of the continued nausea produced by the Antimony and still more impor=
=tant. the constitutional effect of the

calomel. Where the object is merely the expulsion of the secretions in the trachea any of the class of Emetics may answer, The Sulph Zinci has been highly extolled. and no less praise has been given to the polygala Seneka Purgatives are useful in this disease as auxiliaries but should not be too frequently used, a brisk cathartic in the onset of the disease, followed by gentle laxatives sufficient to give one or two evacuations daily, during the continuance of the inflammation is probably all that will be required The warm bath has received much praise as a remedial agent by some practitioners and as warmly condemned

by others. Its use should be confined to the earlier stages of the disease. Besides the remedies above mentioned many others have been ~~recommended~~ recommended under the title of specifics, but they are generally of little use, and should never be relied on alone. As the exudation of the fluid which forms the false membrane frequently commences on the tonsils, it has been proposed to wash them with a solution of Nitrate of Silver and those by whom it has been used speak in the highest terms of its good qualities as a remedy. Others have proposed the insufflation of powdered Alum.

by others. Its use should be confined to the earlier stages of the disease. Besides the remedies above mentioned many others have been recommended under the title of specifics, but they are generally of little use, and should never be relied on alone. As the exudation of the fluid which forms the false membrane frequently commences on the tonsils, it has been proposed to wash them with a solution of Nitrate of Silver and those by whom it has been used speak in the highest terms of its good qualities as a remedy. Others have proposed the insufflation of powdered Alum.

The most powerful emetics have been proposed in the advanced stages of croup with a view of expelling the false membrane judging from the cases on record the success of this practice is extremely doubtful.

When every other means have failed and death is inevitable the operation of tracheotomy has been recommended, as a last foundation for hope, but the best authorities are now agreed that this operation ought never to be performed in this disease.

An
Inaugural Dissertation
on
Pes Equinus
submitted to
the examination of the
Provost Regents and Faculty of Physic
of the
University of Maryland
for the
Degree of Doctor of Medicine
by
Edward A Muris
of Baltimore
February
1841.

Gentlemen,

It now becomes my duty, in conformity with a rule of the institution, to present you a thesis for acceptance or rejection. I have thought that no subject could be more appropriate, than one which is now greatly agitating the medical public. I mean the "section of the tendo Achillis in the treatment of club foot. This is one of the very few subjects which, when thoroughly investigated, has been uniformly satisfactory in its results. But strange to say there are gentlemen in the profession, who pertinaciously deny the practicability of the operation and visit its censures upon those who have the temerity and rashness to undertake it. Such I shall pass over in silence, and address myself at once to those, who, with that enlightened and liberal spirit which should characterize all philosophical investi-

gations, have admitted and advocated the feasibility of the operation and doubtless have frequently performed it. The history of the section of the tendo Achillis is brief. The first authentic suggestion appears to have been made by Thilenius of Frankfort in 1784; although there are some who contend that the initial idea, of curing deformities of the feet by division of the tendon, was known to Hippocrates; but the sentence, upon which their opinions are based, is too vague and incorrect to be relied upon with confidence. It is said that veterinary surgeons had long been in the habit of dividing the tendons of deformed members. Dorfeuilles still preserves the reference from a publication of M M Miquel and Delcaux. "It is long since the practice, of dividing the flexor tendons of the feet in cases of vicious inclinations of the members, was adopted although no one has yet been at the trouble of prescribing rules for performing the operation methodically. Probably timidity of some and want of success in others, have hitherto prevented veterinarians from making known their operative procedes." Thus we perceive that the

operation upon animals may have suggested a trial upon the human subject. Next to White comes Mitchell in 1811 who did not divide the whole tendon, and Sartorius in 1812. Delpech afterwards performed it in 1818. He reported his case and the editor of a journal speaking of it is astonished that the author had seriously proposed such an operation. But whether from the difficulties of his case or the non appreciation of its importance he never performed it again; and in a publication upon distorted feet did not even recommend it. To Dr Louis Stromeyer is the merit justly due, of having given the operation its proper value. He first performed it on the 25th February 1831. and again June 12th 1832. His memoir was published in Hufeland's Magazine for 1833. In 1834, he wrote to the editor of the Archives Générales communicating the result of 4 new cases, three of which were successful. In the Medico Chirurgical Review for 1834 (page 512) Dr Johnson, after publishing the report of Dr Stromeyer's cases in the Archives Générales, makes the following remark. "We give this me-

moir as we find it. We do not pledge ourselves to the opinions expressed by the author in this foreign article. Absence of criticism must not be considered as actual assent." At the time when this operation was brought into notice, the plan pursued in the treatment of deformity of the foot was pressure by means of a roller and apparatus; as will be seen by referring to the Lancet of 1832-3 in which are two articles. One a New Plan for treating Deformity of the Foot by E L Bryan Surgeon Stourmarket. (page 749). The other is a Clinical Lecture by M le Le Baron Dupuytren. The credit of having performed the operation for the first time in this country is awarded by Stromeyer to Dr Detmold of New York, formerly a surgeon of the royal Hanoverian School; but Dr Dyields the priority to Dr Dickson of North Carolina, who operated in 1835, and Prof N R Smith of Baltimore who operated in 1836. Dr Thornton however, of Richmond Va, seems to have divided a tendon for club foot, as early as 1814. The evidences proving the fact are derived from his day book, in which he charges

Mr Walker a carpenter of Richmond, for an operation on child for club foot by dividing the tendon of the tibialis anticus; the foot having returned to its natural position. The next in order after Prof Smith was Dr Dennett who has divided the tende Achillis in one hundred and ninety three cases. Afterwards it was performed by Dr George W Norris, one of the surgeons of the Pennsylvania Hospital, and next in order by Dr Mutter, who reports in his work twenty eight cases operated on. The operation since has been frequently performed by surgeons in different parts of this country. M Velpeau, in a recent discussion at the Royal Academy on the aetiology of this deformity, alludes to the great success which has attended the operation of dividing the tende Achillis. He states that upwards of 500 cases have been treated in this manner, and that, almost all of them have been cured very quickly and without the least accident. M Duval has operated at least 200 times, Dieffenbach of Berlin as often, and M M Guerin Bouvier &c in a number of instances, in all with complete success. I regard

therefore he says this operation as a veritable conquête in surgery.

Cause.

M Guerin, whose orthopaedic labours have great by distinguished him, lately read before the Royal Academy of Sciences, a paper relative to the aetiology of club feet. The main object of the author is, to show that muscular contraction is the immediate cause of the deformity; and that this contraction is always connected with and doubtless owing to, a disorder in some part of the nervous centres. He founds his belief upon an examination of an immense number of monstrous and deformed foetuses, and assures us that he has been able to follow, step by step, the relation between the muscular contractions and existence of disease in the cerebro spinal axis, from a mere spot of morbid alteration at one point; to the complete destruction of the brain and spinal marrow. The primary seat, of the mischief, is therefore to be found in a disease of the nervous centres; a spasmodic and permanent shortening of the muscles, whose nerves are derived from the diseased part is the consequence,

and in this manner a deformity more or less considerable is gradually induced and established. That the deformity is really owing to the cause which we have now mentioned, is made evident by an attentive examination of a case of a case of club foot. We find that the muscles, of the affected leg especially the gastrocnemii, have undergone a complete change. The calf of the leg is found to be flattened, shortened and very prominent with hard resisting edges. They are always observed wasted and atrophied in comparison with the other muscles of the leg. With regard to genuine congenital club foot, M Duvau remarks, that it proceeds from no other cause than convulsive muscular retraction. The pressure, of the parietes of the uterus on the foetus, appears, he says, to produce a deformity of the limbs and feet similar to, but not identical with club foot. Dr Johnson also inclines to the same opinion. We know he says that ruinous distortions of the extremities including that of club foot, are brought on by dentition and other causes of nervous irritation. There appears to have been considerable discussion at the Royal Academy at Paris,

which was participated in by the most eminent of the faculty. It arose from the reading of a paper by M. Martin, wherein he endeavoured to prove, that all or almost all cases of club foot are attributable to the compression of the parietes of the uterus on the feet of the infant during gestation; and that this undue compression is owing to the deficiency of the amniotic fluid. M. Cruveilhier was appointed by the Academy to report upon this paper; and his report expressed a concurrence of opinion with the view proposed M. Martin. M. Velpeau canvassed the subject at considerable length, and while he admitted that the compression of the uterine parietes may possibly be so great sometimes as to cause a deformity of the limbs, concluded by stating that he was inclined to seek for another explanation in some affection of the nerves supplying the feet, or that part of the nervous centre from which these nerves proceed. M. Breschet having endeavoured to prove that club foot, as well as most other congenital deformities, are to be attributed to an arrest of the normal developement of the affected part, M. Cruveilhier arose to express his dissent from this favorite doctrine, at least in a great num-

ber of cases which are often adduced as confirmation of its truth; and proceeded at some length to advocate that doctrine, which refers it to compression by the uterine parietes. In looking over Beale on deformities, I find in his article of club foot (page 95) the following opinion expressed, after having reviewed the sentiments of Tourtelhair. "It appears more reasonable to refer all such defects to some original vice in the primitive formation, the result of which, in some instances, may have been increased by peculiarity of attitude in the uterus. The great variety of form in club foot renders this supposition probable. We scarcely meet with any two cases exactly similar, which also accounts for the discrepancies of opinion among those who have detailed dissections of these parts." I shall content myself with having enumerated the opinions of the most eminent partisans of the respective theories, at the same time candidly expressing my preference for that, which attributes this deformity to muscular contraction.

Varieties.

Authors have generally divided pes equinus into three varieties. In the first, there is but little deformity of the

part. The heel is but slightly elevated from the ground 10.
and seems to be raised by the contraction of the muscles
inserted into the os calcis. In the second variety, there
is still greater retraction of the heel with a contrac
tion of the plantar aponeurosis in a slight degree
The member is bent upon itself, the dorsum uneven
owing to a subluxation of the scaphoid bone. The toes
receive the weight of the body and become deformed
from constant exercise. In the third variety, the
heel is very much elevated from the ground so as
to be scarcely visible. The foot forms a straight line
with the leg and rests upon the end of the toes which
yield whenever the patient attempts to walk so that
the weight is received on the outer or inner edge of
the foot. The dorsum is more convex than natural
and the plantar aponeurosis generally contracted. There
is another form described by Mutter. The boy was
born with a pes equinus of the right foot, of the third
degree, which had been neglected when he began to
walk. The toes turned directly backwards so as to bring
the dorsum of the foot upon the earth. The foot was
much contracted and the plantar fascia very strong.
The pores which received the weight of the body were

covered with a horny mucus; the muscles were rigid 11.
and the leg wasted.

Means of Cure.

The means, which have been proposed for the cure of pes equinus, consist either in the elongation or section of the tendon. The first variety may be cured in a short time by a properly constructed apparatus such as that used by Dr Mutter. which consists of a foot board with holes for the attachment of the strings of a gaiter and leg irons which extend to the knee. This apparatus will enable us to treat successfully, the milder forms of pes equinus in very young subjects; but in those more advanced, it will be a judicious course and expedite greatly the cure if the tendon be at once divided. I refer with pleasure to a treatise on the nature of Club Foot and analogous distortions including their treatment both with and without surgical operation by Wm Little MD. I shall make very liberal use of Dr Little's opinions of the manner in which we should perform the section of the tendon as they advocate with very few exceptions the views I entertain upon the subject. He performs the operation thus The pa-

tient being seated, an assistant supports the knee, while another drawing downwards the patient's heel with his left hand and pushing upwards the toes and front of the foot with his right produces the necessary tension in the tendon proposed to be divided. The operator, after feeling the outline of the tendon with his left fore finger and thumb, pushes the bistoury through the skin one or two fingers breadth above the internal malleolus with one of its sides turned towards the tendon, and the other directed towards the deeper muscles and tibial vessels and nerves. On being satisfied that the point of the knife has pierced the external edge of the tendon and has nearly reached the skin on the opposite side, the knife is turned so as to bring the cutting edge to press against the anterior surface of the tendon, which is then divided by the action of withdrawing the knife from the limb and commonly by a single stroke. The complete division of the tendon is known by the immediate cessation of the tense resistance, by hearing a distinct snap, and by feeling, before the knife is wholly withdrawn, that nothing remains undivided except the flaccid integuments. The operation does not

occupy a greater of a minute and is almost bloodless, as usually not more than a single drop of blood is effused. The division of the tendon of the posterior tibial muscle is best accomplished, at the distance of two or three fingers breadth above and behind the internal malleolus. The point of a strong and straight bistoury should be introduced through the skin at the outer edge of the tendon and passed between it and the tendon of the long flexor of the great toe directed towards the tibia. As soon as the knife reaches the bone, the handle should be depressed outwardly and the point carried internally beneath the posterior tibial tendon and continued outwards until the surgeon is satisfied, that the point has passed beyond the inner edge of the tendon. He may then feel that he has the tendon upon the edge of the knife, when by a few slight cutting motions he may divide it without difficulty. A snapping sound, similar to that which follows the division of the tendo Achillis, is heard when the section of the posterior tibial tendon is accomplished; as the fleshy fibres of this muscle take their origin so low towards the internal malleolus, that they prevent the

recurrence of any considerable retraction of the superior end of the tendon. The most favourable situations for dividing the tendons of the tibialis anticus and flexor longus pollicis muscles are, where the former passes in front of the ankle joint, and where the latter is felt most prominently in the sole of the foot in those cases where division is required. The manner of dividing each of these tendons, is to pass the point of a bistoury through the integuments and then with great care beneath the tendons, avoiding to carry the knife further than is absolutely necessary and dividing the from within outwards in order not to endanger any of the neighbouring structures. The recoil of these muscles, on their tendons being divided, is distinctly felt and heard. If they be cautiously divided, no risk is incurred of injuring the posterior tibial, anterior tibial, internal plantar arteries, or any of the nerves. The wounds made in the integuments are extremely small and unite by adhesion, consequently all chance of suppuration and sloughing is avoided. After either of these operations, a strip or two of sticking plaister and a wooden or pasteboard splint intended to keep the foot in its de

formed position, are to be applied. The apparatus to which Dr Little resorts for the necessary extension of the limb, is the foot board invented by Stromeyer and another apparatus constructed in some respects upon the principle of that described and represented by Scarpa in his work upon the cure of these deformities. Dr Little remarks, that the original instrument of Scarpa, although highly valuable in affording one of the principles upon which a correctly adjusted and efficacious instrument for the cure of these contractions must be made, was entirely defective in providing means for drawing the heel downwards. This Scarpa anticipated would gradually take place when the patient walked, the tendency of the toe to turn inwards being at the same time obviated, and the foot maintained securely in a favourable position by his apparatus. Stromeyer added several improvements to Scarpa's instrument, from which, in addition to numerous private suggestions from him, and Dr Little's own experience, he has profited by a different adaptation of the screw to act upon the ankle joint, and by altering the arrangement of the straps. The mode of applying Stromeyer's foot board and his own apparatus

ratus Dr Little explains by referring to an examination 16.
of his plates. After the healing of the wound, he recom-
mends great caution in the mode of applying extension &c
The skin should be protected from friction and un-
ven pressure, by the application of an elastic cotton
web bandage, and by filling up with wadding those
inequalities of the surface of the tarsus which arise, in
many instances, from unequal projection of the bones.
In many cases, says Dr Little, the slightest pressure ex-
ercised by the instrument, will suffice to overcome the
deformity without producing pain, provided attention
be daily paid and the screws and straps be tighten
ed, whenever they become loosened by the progress which
the foot makes in the required direction. In other
subjects where the resistance is greater, more pressure is
required, accompanied by a greater of pain; but the
surgeon must not always expect to restore the foot ra-
pidly to its natural position, nor must he proceed with
any thing but gentleness and caution. He must avoid
so far as can possibly be done, the production of excori-
ations sloughing &c. which might seriously retard or al
together prevent the success of the operation. Occasionaly
the pain in the foot produced by the pressure requi-

site to bend the ankle is intolerable. Dr Little observes "I can well appreciate the amount of suffering thus occasioned, having experienced it to a great degree in my own case. After witnessing in many patients the distressing pain felt in the sole of the foot, when the form of the bones or corns caused particular parts of the sole to be disproportionately compressed, about two years since at the suggestion of Mr Robert Darey Osmond F.R.C.S. I placed an air cushion between the sole of the foot and the foot piece of the apparatus, in order to produce an equal distribution of pressure over the whole of the sole. The pain was instantaneously relieved, and I am indebted to the use of the air cushion, for the comparatively little pain with which the cure of numerous cases has been attended." I have given gentlemen somewhat at length, the opinions of Dr Little, because I can find in no treatise sentiments, which are so reasonably based upon clear deductions from well attested facts. I beg leave now, briefly to recommend to your notice an apparatus exceedingly simple in construction, and admirably adapted to the purpose for which it is designed. It was first suggested by my friend and preceptor Dr Thos. H Buchler to a shoemaker of this

city, upon whose daughter he was then about to operate 18.
and by him carried into effect. The Dr was atten
ding another member of this gentleman's family, and
happening accidentally to see the girl passing through
the house, was at once struck with the deformity and
fortunately remarked to her father that there was a
simple and easy method of cure. He proposed an
examination, which was readily assented to. It proved
to be a congenital pes equinus of the second varie-
ty, the heel being elevated four or five inches from
the ground, the dorsum of the foot considerably
arched, and the gastrocnemii muscles somewhat atro
phied. Not having the apparatus in ordinary use at
hand, it was proposed simply to plane two small
pieces of board; to make one piece extend from the
bottom of the heel to within two or three inches of
of the popliteal cavity, and the other the length of
the foot. The angle, formed by their junction, was smooth
ly excavated for the comfortable reception of the heel,
and a piece of leather semilunar in shape, tacked
on each side for the purpose of retaining the heel
in its proper position. The operation was now commenced
by making an incision in the shin parallel with the

tendon and afterwards the transverse section. The muscle retracted with its characteristic snap, and the heel came down at least an inch. This simple apparatus was then applied, cotton in some places being interposed to prevent excoriation. A plain roller was passed from the toes to the knee and the patient left to repose. Every thing went on in the most satisfactory manner. She complained of but little pain and that chiefly confined to the instep; the external wound healed kindly, and in the course of four weeks we had the pleasure of seeing her walk with a foot natural in appearance and after a little while perfect in use. It has since been applied in two instances with equally as favourable terminations as the case I have just detailed. In the average number of cases of club foot, whether congenital or otherwise, two or three weeks elapse after the operation before sufficient bending of the joint is obtained; after the expiration of another fortnight the greater part of the tenderness of the ankle joint produced by the stretching of the ligaments subsides. By this time the union of the tendon has acquired sufficient firmness to allow of walking and exercise in the open air. Some time elapses, before the gait of the individual gains the

ultimate perfection of which it is susceptible. Children advance more slowly in this respect than adults, as they limp if they feel the least uneasiness, and cannot take so much pains with their manner of walking. There are many adults who, within two months after the performance of the operation, can walk several miles and have but little appearance of lameness. Dr Little had a very bad case of congenital club foot which was under treatment nine months; but in the plurality of cases, a cure is generally effected in five or six weeks. With these remarks I take leave of the subject respectfully subscribing myself

Your obedient servant
Edward A Maris.

An
Inaugural dissertation on
Syphilis,
Submitted before the
Provost, Regents, and Faculty of Physic
of the
University of Maryland;
for the
Degree of Doctor of Medicine,
by
John E Garner,
of
St Marys County,
Maryland.
1841 – 2.

Syphilis. (σύφλοω - ~~[illegible]~~ s)

The origin of this disease is still involved in much obscurity. Some writers believe that it originated at the siege of Naples, while others contend that it was introduced into Europe by Columbus' men, after the discovery of the New World: Others, again, among whom may be found Messrs Beckel, B. Bell and Dr Swediaur, maintain the opinion that the disease was well known upon the Old Continent, and that it prevailed among the Jews, Greeks and Romans long before the discovery of America. Even as far back as the days of Fracastorius the disease seems to have been known, who ascribed it "to the different constitutions of heaven and stars, which but seldom happen, but may effect great matters when they do coincide" The same writer seems to have entertained the opinion that it was one of those diseases which rise, cease, and again return, at long intervals

ages:—

Quam tamen (æternum quemam delabitur ævum)
Non semel in terris visam, sed sæpe fruiſse
Ducendam est: Quanquam nobis nec nomine nota
Hactenus illa fuit: &c &c.

The canvassing of these opinions were of little benefit to science or to the management of the disease; the next is a point of some practical importance,— viz whether there is or is not any material difference in the character of the virus of the two diseases, Syphilis and Gonorrhœa? Until late in the eighteenth century, the characters of the two diseases were considered as radically distinct, but the experiments of Mr John Hunter, Guthrie, Sagneau and others induced those gentlemen to establish an hypothesis which more modern experience is acknowledged to have subverted.

The result of their experiments go to prove that ulcers will arise on the penis from Gonorrhœa, that gonorrhœa will in its turn be caused by the matter of these ulcers,

and that both occur in consequence of uncleanly or promiscuous intercourse. That many of the ulcers produced in this manner will occasionally assume every character of chancre and cannot be distinguished from it. This variety Mr. Guthrie says is capable of producing constitutional effects and can be cured without Mercury. This, I conceive, is the syphiloid disease or the pseudo-syphilis of authors, of which I shall not treat;- firstly because I conceive the diagnosis of the two diseases to be exceedingly obscure and fallacious; secondly, if such be the nature of those ulcers as described by some writers, they will not come within the pale of treatment for Syphilis as it is either Gonorrhœa or another disease, and thirdly because the existence of such a disease has if not been questioned strongly denied by some whose opinions I should even be disposed to treat with the highest deference. Yet however high be the authority adduced in support of the ~~affirmative~~ negative of

this question, I have little hesitation in saying that the doctrines of those who deny the identity of the two diseases, I consider to be more plausible and certainly more beneficial to the cure of Syphilis, and I should even be disposed to treat them with a corresponding distinction.

Lues venerea or Syphilis takes its origin from an unclean and promiscuous intercourse between the sexes; and like the fabled Nemesis seems to requite for the good derived from such amusement, by effects which sometimes present the most melancholy appearance in all suffering humanity. It most generally also demands for the infliction of its loathsome canker the "bud and bloom" of Youth, since it is at that period of life, the passions which are one of the remote causes of the disease are more particularly alive. It is supposed to arise from a specific morbid poison which, when applied to the human body, has the power of propogating or

multiplying itself and is capable of acting both locally and constitutionally - locally in those parts only to which it is first applied and constitutionally in consequence of its absorption. As regards the length of time it requires for the poison to manifest its effects after it has been conveyed to its victim, there is no definite period. Five or six days after impure coition is generally sufficient to develope its effects, ~~and~~ but often it requires several weeks, and indeed it is said that these effects may arise two months after the venereal cooperation. The first symptom of the disease is that of an ulcer or chancre, which usually begins with a slight redness or inflammation on some part of the genital organs, which is accompanied ~~also~~ with a pruritus or itching, soon a pimple or small abscess is formed, filled with pus which upon bursting leaves an ulcer of a circular shape, somewhat excavated, the edges of which are most generally abrupt and hardened. The

base of the ulcer sometimes becomes thickened, thereby converting parts to some extent into a tumour which may be elevated with the fingers, and feels like a hard, moveable, subcutaneous body. These chancres usually make their appearance in men upon the glans penis, the freenum, the orifice of the urethra, and sometimes also on the scrotum and thighs. In woman they generally select the labia, the nymphae, the clitoris, mons veneris, the meatus urinarius and sometimes also the perineum and thighs. The venereal virus is sometimes arrested by the lymphatic glands within the groins, but these glands which in this disease may be compared to sentinels for this enemy of human health, sometimes suffer, if I may use the expression, the enemy to escape — the venereal virus is taken into the circulatory fluid and thereby perpetrates its constitutional injuries. These constitutional effects are most generally manifested by morbid appearances

on the skin, such as eruptions, which appear in distinct circular patches, slightly elevated above the surrounding skin, and covered with thin, whitish laid scales, which are easily separated - leaving smooth, shining copper-colored blotches - Sometimes, however, the first symptoms of constitutional disorder appear in the throat and mouth - or both of those symptoms may be sometimes seen in the same patient - The throat becomes ulcerated about the tonsils and soft palate without much previous manifestation of inflammation, and with but little pain or soreness - As the disease advances, it seizes upon the deep-seated parts and the bones, fascia, ligaments &c are frequently sacrificed to its powerful ravaging influence - The most superficial bones are generally selected by the disease as the clavicle, sternum and cranium, which ~~lat~~ frequently presents the appearance of worm-eaten wood.

As the ulceration advances in the throat

one or both tonsils, the uvula, velum palati membranous part of the Eustachian tube and even the glottis may be entirely destroyed giving rise to permanent deafness and incessant cough and endangering the patients life from suffocation, by permitting solids and fluids ~~from~~ to enter the Larynx (Gibson) Sometimes the disease travels along the Schneiderian membrane, undermines the septum and cartilaginous portions of the nose, sizes hold of the periosteum, which is eventually destroyed, thereby rendering the bony structure carious which crumbles away;- and then the features become horribly deformed. The breath becomes most offensive and there is sometimes a sanious discharge being continually distilled into the nose and mouth. The voice too is irrevocably lost; and the patient whilst he ~~presents~~ excites an disgust presents also an aspect which appeals strongly to the tender sympathies of our nature;- indeed he may, at this stage of the disease, be said to meet only

death along the path of life.
The first evidence of its approach towards the system is an enlargement of one or more of the Lymphatic glands situated in the groins, constituting what is known by the name of Bubo. The sores resulting from bubos being opened or spontaneously bursting are exactly similar to a chancre in their nature and effect, the only difference being in regard to size. "This venereal inflammation, says Dr. Gibson, seldom arises from a chronic Chancre but usually makes its appearance soon after the Chancre is established. It is more apt to follow an ulcer on the prepuce or frenum than one situated on the glans penis" They sometimes remain stationary for a week, frequently however after assuming a bright scarlet hue and much tumefaction attended with great pain, they end in suppuration which is sometimes very extensive.
Another disposition induced by the occurrence

of chancres is that to excrescences or cutaneous ~~warts~~ tumours called warts - These are considered by some not simply as a consequence of venereal poison, but as possessed of its specific disposition. They arise by a small neck or pedicle and expand mushroom-like at their apex, are exceedingly painful and bleed on the slightest touch, which is a characteristic distinction between these and the common warts which possess little or no sensibility. When the disease attacks the bones solid enlargements are produced, which, when ~~they~~ having existed for any length of time, become a source of much annoyance to the patient. These bony ~~indurations~~ excrescences are generally described under the name of nodes - When nodes are situated on the skull, both laminae of bone are perforated with numerous holes, a fine specimen of which may be now seen in the Anatomical Museum of this University - A great enlargement and thickening of bones are often found in patients who have suffered long under

Lues Venerea or the abuse of Mercury.
Alopecia or falling off of the hair is another symptom which accompanies the worst forms of Syphilis.
This disease is sometimes also communicated to the foetus in utero, though in what manner is a question not yet elucidated
An universal desquamation of the cuticle, a hoarse squeaking voice, copper coloured blotches, scaly, cutaneous eruptions, and a preternatural redness of the anus are generally laid down as characteristic features of Lues being communicated in this manner. Children may also acquire this disease from the nipples of nurses labouring under it, and according to some children having received the disease from their parents, can in this turn convey the poison to the nurses system by medium of those glands.
Phymosis and paraphymosis are also troublesome symptoms in this disease
&c &c &c

Treatment of Syphilis

Owing to the great discrepancy of opinions of practitioners on this subject, it were difficult to speak confidently as regards any proper of precise mode of treating Lues Venerea. Many have studied with laboured minutiæ the different varieties of primary ulcers and the conclusions deduced from their disquisitions have been such as to establish an hypothesis which must confessedly be very fallacious. They maintain that there are certain ulcers the offspring of impure coitus characterised by certain external appearances in the cure of which Mercury would be inadmissible and highly detrimental, and they sparingly admit, there are certain other varieties in which a moderate use of this mineral would be as certainly beneficial. Dr. Hennen observes "we are not in the possession of the knowledge of any invariable characteristic symptoms by which to discriminate the real nature of the primary sore, and we are equally at a loss in many of the secondary symptoms.

I am aware that some practitioners have assumed to themselves the profession of a 'tactus eruditus' by which they can at once distinguish a chancre or venereal ulcer or eruption in which Mercury is inadmissible, from one of a different nature but I have seen too many instances of self deception to give them all the credit they may claim to" This high authority would be sufficient I conceive to justify ~~my~~ our expression of my belief in the same; - that chancres have no determinate external character; they are exceedingly diversified in their appearance, and absolutely cannot be distinguished, by their mere look, from sores which are of a common, or at least a very different nature.

Among the anti-mercurial practitioners, in the first stage of Syphilitic ulcers, may be found the gentleman, whose opinions I have cited above. He forbids the use of Mercury at first, treating it as if it were a simple ulceration, by cleanliness, rest and

abstinence, and applying to it the most simple and mildest dressings. If the sore did not put on a healing appearance in a reasonable time, the extent of which must depend upon the circumstances of the patient, he would make use of more active dressings.

We admit with Dr. Hannen that a chancre might frequently be cured with external applications, and that as we know from experience, its virus is not always absorbed, the cure might in a few instances prove permanent, but we can never know with certainty whether this would happen or not, while in the greater proportion of cases there would be reasons to suppose that absorption would take place. This, as Prof. Potter remarked when lecturing on this subject, would only be "ignis in cinere suppositus" The dislike of Mercury in the cure of this disease seems to be unfounded. When it is carefully employed it is certainly the surest means of success, but when indiscriminately and

profusely used, like most other remedies, it is apt to leave its own evils for the venom which it destined to destroy.
The treatment then may be ushered in with an administration of the mildest preparation of Mercury - the blue Mass, in the dose of four or five grains daily, applying in the mean time to the ulcers, what Mr Hunter recommends - mercurial dressings. Of these a solution of the Hydrarg. Bi Chlor. in the proportion of one grain to the ounce of water, is probably the best, unless the ulcer be indolent, in which case the Ung. Hydrarg. Nitrat. as being more stimulating is probably preferable. The patient in the mean time should be at rest and the mildest articles of diet be prescribed. The Hydrarg. Prot Chlor. or calomel is preferred by some to the blue Mass, the best formula for which, as being more capable of speedily arresting the effects of the remedy is probably that used by the late Prof. Baker in almost every case that fell

under his protection in the Baltimore Infirmary

℞ Hydrarg. Prot Chlor. ʒj
P. G. Opii — grs v
Ipecac — " v M.
Pill. No xx

Three of these pills were administered daily with signal efficacy. The effects were prompt and seldom failed to produce, what is necessary in the cure of this disease, — slight ptyalism which should be moderately kept up, until a change is induced in the character of the ulcers. The Bi-chlor. of Mercury has also been used in this disease when other preparations of Mercury failed to produce the desired effect. It may be administered in the dose of 1/16 part of grain three times daily.

With respect to chancres in woman the ulceration is more likely to spread in consequence of the surface on which the ulcers are liable to form being much larger. Mr Hunter remarks that the matter from these sores is apt to run

the perineum to the anus and excoriate the parts especially about the anus where the skin is thin and where chancres may be thus occasioned - Mercurial ~~lo-~~ ~~tions~~ Solutions are recommended similar to those used for men. When the sores extend into the vagina, this passage should be kept from becoming constricted or closed by the introduction of lint. The Lunar Caustic and Caustic Potash are generally applied to the hardened edges of a chancre, which after the system has been under the influence of Mercury are ~~one~~ two of the best means for the cure of Syphilis; but prior to the use of Mercury their application is said to be productive of mischief, by producing bubo from the irritation which they inflict. Where there are ulcers in the throat such an application is of ~~unquestion~~ unquestionable benefit in promoting the healing of the ulcers & Due proportions of Calomel and lime water is one of the best

application to Chancres and to Bubos after suppuration has taken place. A Bubo becomes sometimes the most troublesome symptom appertaining to the disease owing to the immense suppuration which sometimes takes place from them. If the bubo be only in an inflamed state, an attempt should be made to resolve the swelling, for which purpose the camphorated mercurial ointment is probably the best application. Iodine (in ointment and ~~tincture~~ tincture) has been used to resolve the swelling in bubos but I should not think its application would be salutary where the tumours were very sensitive and shew a disposition to suppuration; — if the tumours be stationary as they sometimes are, Iodine may be used with some advantage. Cold applications are also applied to bubos for this purpose but often despite all our endeavours to prevent suppuration we find it the inevitable result. The propriety of the attempt however to subdue the inflammation depends

on the progress the disease has made. If the bubo be large and suppuration appear near at hand, resolution is not likely to be affected. When suppuration has taken place there is not much probability of any success attending the endeavour which now may only retard the suppuration and protract the cure. If the Tumour burst not soon, sua sponte, exit should be given to the accumulating pus with the Knife, and cataplasms of bread and milk be applied. It should not be forgotten, however that a mercurial impression should be kept alive in the System so long as the bubo suppurates, both with a view to make the bubo heal and prevent the bad effects which might otherwise arise from the matter being absorbed.

The black wash is also recommended for bubos. When they become stationary and are inclined to spread attended with sinus' the cicuta with bark may be used both internally and externally

In the secondary forms of this disease if Mercury did not evince its good effects speedily, I would suspend its use and resort to other remedies. Before, however, ~~I~~ bidding farewell to Mercury I should have spoken of the Plummer's Pill which has been used by one in the Baltimore Infirmary whose interference is alone sufficient to entitle it to the highest respect. The formula for this Pill is herewith inserted –

℞. Hydrarg. Prot. Chlor grs
Gum. Guiac " ij
Per Sulph. Antimon. (Golden Sulphuret) ʃ ℳ –

This pill is to be administered thrice daily in the secondary form of the disease It is said to be particularly beneficial in that form characterised by eruptions on the cuticle –

The iodoret of Mercury is also used by many practitioners in the cure of Syphilis and the solution of Iodine as prepared by Dr Lugol, which is particularly efficacious when the disease is grafted on a strumous habit

The muriate of Gold is also invoked in the cure of Syphilis and is said to be highly efficacious - Sarsaparilla and Guaiacum in the form of ptisans are powerful auxiliaries in the cure of this disease also -

As regards the treatment of the warts or excrescences the same treatment may be followed internally as is applicable to other forms of the disease - The warts may be removed by a sharp pair of scissors or bistouri and then dressed with pledgets of lint confined by means of small adhesive straps —

For the cure of Venereal nodes, when not attended with much febrile irritation we possess, says Dr Ebule, no remedy more frequently successful than arsenic - For this purpose from ten to twenty drops of the Fowlers solution may be given twice or thrice a day - Blisters are said to aid materially in dispersing the nodes.

I have now written, in a cursory and very imperfect manner, of the application of various remedies to the cure of Syphilis which when made in time is as certain to succeed as that of most other remedies of the Materia Medica recommended in the treatment of various diseases, yet often this powerful disease is suffered to run its course unmolested until the system becomes shattered. it is then that we are frequently called upon to prescribe when "like the voice of the moralist to the heart" our remedies are addressed to the system too late and the disease as a sword reposing in its sheath gradually wears out its frail and corroded tenement of clay.

An
Inaugural Dissertation
on Neuralgia
Submitted to the consideration of the
Provost, Regents, and Faculty
of the
University of Maryland,
for the degree of
Doctor of Medicine
by
Hattersly Worthington
of Maryland

March 1841

To
George S. Gibson M.D.
As a grateful acknowledgement of many favors,
this Thesis is most respectfully dedicated, by
His pupil,
The Author

Neuralgia

This word, from νευρον nervus, et αλγος dolor, is very expressive of the seat and prominent symptom of a disease, which, by its increasing frequency of late, has forced itself upon the attention of physicians. From the violence of its paroxysms, its difficult pathology, and consequent uncertain treatment, there are few complaints, which could have more claim to our attention; occurring as it does, most frequently, in that sex, who, though as physicians we should regard neither sex or condition in our ministration of relief, demands our strongest sympathies as men. It would appear, from the silence of the older writers on this subject, that the disease was altogether unknown to them; or, we are led to infer, that they paid no attention to its nature; yet, it is difficult to suppose, that pains so agonizing should have failed to have arrested the attention of medical men. Dr. Fothergill, who was the first to write ex pro fesso, on this complaint, says, that he "only met with about 14 cases in the course of his observations." It should be remembered, however, that he only speaks of the disease, as attacking the face; whilst

later, and more extended observation, has shown it to be confined to no particular part of the body. It appears to me not improbable, that many cases of neuralgia, were formerly treated as rheumatism; especially, under the name of nervous rheumatism, Indeed several cases of this kind might be pointed out in the work of Dr Sydenham; and, even the observant Armstrong, has confounded the two. He says, "sometimes it -rheumatism- distinctly follows the course of the nerves, existing either in the sheath or in the substance of the nerves, or in both."* We are to look for the principal cause of this confounding the two diseases, in the blind servility of men, to the opinions of nosologists. These were the bright fixed stars, around which, the lesser luminaries of science revolved, as centres; borrowing all their light, and not daring to wander without their accustomed path. Being a disease whose chief characteristic was violent pain in the external parts, in the seat of the muscles, the only nosological head under which they could clap it was that of rheumatism; and thus, yielding up their own free thoughts and judgement to the opinions of others, they spent that time in vain

*Armstrong's Lectures, p 437. London Ed.

endeavors to find a specific for rheumatism, which should have been given to the investigation of the cause of the complaint, to which they directed their remedies. But the investigating spirit of the nineteenth century has given a new and more philosophical direction to the pursuit of medicine. Men no longer rest satisfied with the ipse dixit of nosologists and teachers, but dare to draw their own deductions from facts revealed by the knife of the dissector, in conjunction with the clinical observation of disease. And, if the class of nervous disorders have, as yet in a great degree, defied the scrutiny of their research, that which has been done gives great encouragement to the hope, that something more is still to be revealed.

To this disease Sauvages, gave the name of trismus dolorificus, and the French term tic doloreux, is still vulgarly applied to the disease, more particularly, when seated in the face; but the term tic is here without application, in most cases; for, spasm is by no means a constant concomitant. Dr Fothergill headed his paper, with the title "Of a painful affection of the face". The present term, neu-

ralgia, it is believed was given it first by Anglin of Strasburg. Dr Good's classification includes three varieties – N. faciei, N. pedis, et N. mammae, according to the part affected. The uselessness of any classification has already been hinted at, for, it is now known to be confined to no particular nerve, or set of nerves. Indeed some late writers as Teale and others, do not confine the term Neuralgia, "to affections of the nerves attended by pain," but also apply it to "certain internal disorders, not attended with pain". Its most frequent point of attack is the face, – in the seventh, and fifth pairs of nerves. When attacking the second or third branches of the fifth pair, it is liable to be mistaken for tooth-ache, and many a fine tooth has been lost, under a false perception of its nature. – The nerves of the extremities, are frequently the seat of the complaint; – the breasts of females, constituting the third variety of Dr Good. The internal organs as liable to be affected, as external; – the abdominal viscera, – the stomach, intestines &c; – the uterus; and M. Civiale says, the urethra is sometimes affected. Stumps after amputation.

Symptoms. The symptoms indicative of this disease, as far as the sensations of the patient are concerned, are of a violence unsurpassed by those of any other complaint. Its paroxysms come on with attacks of the most excruciating pain in the situation of the nerves; either running along the course of the nerve, or stationary at its extremity. The pain, at times of a violence to cause the patient scream in the agony of his sufferings, and even, in the language of a sufferer, "to draw tears as hot as water from the fire." The feeling is sometimes as though cold water were trickling over the part; - again, there is a tingling sensation, or as though something were creeping over the skin. The more acute symptoms are as if so many needles were piercing to the very bone, with a sense of muscular soreness, of a degree to render the lightest touch intolerable; - again, there is a dull, gnawing, grinding sensation; - a feeling which a patient described to me, by comparing it to what might be imagined as the sensation "of a log of wood much eaten by the worms," or "as though something were probing the very bone, and never would get the instrument fairly inserted." These paroxysms, in some, come and go with the rapidity of electricity, attacking with ~~successive~~ shocks of momentary dura-

tion, successively for a longer or shorter period, and then going off, and leaving the patient free from pain, until a recurrence of the paroxysms which in some individuals is strictly periodical. But these intervals of remission, and this periodicity, are only to be found in the early cases; for after it has been of some standing the pain continues unabated throughout the paroxysm, which may last for days; and there are here even temporary exacerbations; whilst in some the pain can hardly be said altogether to disappear between the paroxysms. During the continuance of an attack the patient is susceptible of the slightest impressions, bodily or mental; — the least noise, the lightest touch giving excruciating pain; — the weight of the bed-clothes is insupportable, and even the accidental touch of some one passing the bed will cause him to scream; — he can not bear the slightest motion, and, especially where the face is affected, to talk is but to aggravate the pain. These violent symptoms subsiding, leave the patient, sometimes, free from pain, but in others a state of great nervous irritability follows, frequently a weak debilitated state, with an apathy to every surrounding object, deprived alike of any affection for friends or family.

These symptoms are mostly confined to one nerve and its branches;- in others, several nerves may be the seat of disease; whilst in one case, of which I am cognizant, the whole left half of the body is liable to the pains. This case, which is one of very great interest, I shall detail in extenso, farther on. Several interesting cases of this description, are given, in the work on spinal irritation by the Bros Griffin, of which there is an extended critique in Vol. XXVI of the Medico Chirurgical Review. But I have already stated, that the term neuralgia is not now confined to its literal meaning, but that other "nervous disorders, not attended with pain," are included under this name. It has now been found that many of those internal disorders, which take on such Protean aspects, "resembling inflammatory disease, yet exasperated by bleeding,- which simulate spasm, yet defy opiates"* are affections of the nervous system, resembling, and in fact synonomous with external neuralgia. To notice all these complications, would extend my Thesis to an unpardonable limit; I shall detail but one such case, which has been to me of no inconsiderable interest.

*Griffin

Miss — had been subject, from the age of nine years

to violent headaches, accompanied with vomiting, occurring about once in every fortnight, and continuing for fifteen or twenty hours. At about 19. these headaches assumed more of a nervous character, not being accompanied by vomiting; She had been for some time previous to this subject to palpitation of the heart, and an occasional pain in the left side. The palpitation was at first but slight, lasting but a few minutes; it gradually increased and continued much longer. These symptoms continued, the headach becoming more violent, and the palpitations more distressing in their frequency, untill the age of 24, when, the bodily labor, and mental distress, incident to the attendance upon a near relation, in the cholera, prostrated her nervous energies, to a degree, which they have never since fully recovered from. The following year she was first attacked with tic dolorex in the lower jaw. Her palpitations became still more distressing, frequently compelling her to lie down, untill the "spell" went off; sometimes they were followed by syncope, and upon several occasions, she was considered as dying by her attendants. After this, neuralgic pains

attacked, her side, and upper and lower extremity of the left side; to these symptoms are added those of gastralgia. During her paroxysms, her pains affect all these parts, either in conjunction, or successively; now attacking the face, now the side, and again, in a moment, off into a finger or a toe. So frequent have been the attacks, of this lady, that she can now foretell, with a degree of certainty, the approach of her "persecutor."

Diagnosis. When occurring in the face or extremities, it is not difficult to distinguish this disease; From rheumatism, it differs in not being accompanied by any swelling, in the suddenness and violence of its attacks, and in its shooting along the course of the nerve. Another symptom, noticed by Mr Scott, when the disease has been of long standing, is, "a tenderness of the nerve" by which "the slightest touch will excite a paroxysm." To these we may add the periodicity of its attacks in early cases. It is not when the extremities are affected, that the greatest difficulty exists; painfull superficial affection of the abdominal and thoracic cavities, noticed by Armstrong and others as liable to be confounded with internal inflammatory disease, and also many of those

wandering internal anomalous symptoms, feigning the most distressing organic lesion, are the most difficult of diagnosis. The observations of Teal,* of Tate† of the Griffins‡ and others, have drawn the attention of medical men, to one almost invariable attendant upon these symptoms, "a tenderness on pressure at some portion of the vertebral column, whence the nerves of the part originate." It would be anticipating what we shall have to say of the pathology, to speak farther of this symptom at the present time; we shall therefore leave it, and turn our attention to the causes of Neuralgia.

*On Neuralgia
†On Hysteria
‡Loc. Citat.

Causes. I think that, in relation to the pathology of this disease, we may, with great propriety, divide the exciting causes into two kinds; first, immediate, or those which act by their direct mechanical irritation upon the nerve, — and second, mediate, acting indirectly, through the general system.

Of the first kind of causes, are, the lesion of a nerve, from external violence, — disease of the bone, or thickening of the periosteum of bony canal through which nerve passes; not an unfrequent cause of facial neuralgia, — lodgement of a foreign body, as a ball on the course of the nerve. The disease from this cause is presented

in the case of May. who was wounded by a ball, which is apparently lodged, among or near that plexus of nerves which go to form the great sciatic. Another cause, somewhat similar to the last is the presence of a tumor, aneurismal or other on the course of the nerve. An interesting case of this kind, was that of Mr Mahlon Hopkins of this city, who had been for some years afflicted with a complaint similating lumbago, and also with excruciating neuralgic pains in the sciatic and femoral nerves. These pains were the most violent, when standing erect, or in motion; he could not lie down, without being liable to most excruciating pain, and he was frequently obliged to jump out of bed, and to set in a chair, with his body bent forward upon his thighs, in which position he enjoyed comparative ease. The attentions of the most astute of the profession, could afford him no relief; he went through the whole routine of practice for rheumatism, and sciatica, without the least benefit. Having died very suddenly, during the last winter, a post mortem examination revealed, at once the cause of his symptoms and his death, in a large aneurism, near the bifurcation of the aorta

The irritation of a diseased tooth has produced the disease. There is a case, of Dr Pemberton's, related in some of the journals, in which neuralgia of the infra orbitar branch of the fifth pair, was produced by a bony deposit upon the dura mater, within the skull.

The principal causes, of the second variety are sudden changes of weather, a cold damp atmosphere; irritating articles of diet; strong mental emotions of any kind; suppression of some customary discharge, as of the catamenia, - marsh-miasm. To prove the frequent operation of the latter agent, in originating neuralgia, Dr Macculloh has written a valuable book; Its effects in this way has not escaped the eye of Armstrong; he says, "malaria sometimes produces intense pain, either returning periodically as to the time of return, or, periodically as to the time of their duration."* I have knowledge of a case of this kind in a lady, residing in Geo. Town D. C; in whom the paroxysms come on daily, at about 9 o'clock in the morning, and continue, with the most agonizing pain untill 11 o'clock. This lady resided for some time at Greenleaf's point, Washington City, a marshy place, and was there subject to repeated attacks of bilious remittent fever.

*Lectures p 552 London Edition

account for the pain, noticed by Mr Hennen as coming on, after a gunshot wound in the proximity of a nerve. A case, of the kind we have been considering, familiar to some of the faculty, is that of Mr Mabel on Hopkins, before detailed.

I can not coincide with Mr Scott in the doubts he expresses, as to the capability of "these local causes to produce this affection, in a perfectly healthy person, free from any morbid ~~condition~~ condition of the nervous system?" I conceive that by the continued and repeated action of the ordinary exciting causes, the nerve is brought into a state of predisposition, and finally of disease, without any necessity of implicating the general nervous system.

Dismissing the consideration of these cases, from my first class of causes, we will turn to the consideration of a more frequent and, in many respects more unsatisfactory variety of the disease, such as originate from causes acting through the system. In seeking the opinions of authors, on the proximate cause of these cases, we find them divided between attributing it to praeternatural vascularity of the neurilemma or of the nervous substance ~~,~~ or to a functional dis

order of the nerve, whilst, a third party, with perhaps a still greater show of reason, attempt to conciliate both these theories, and find the pathology to consist, in neither the one nor the other theory at all times. There seems to be in all sciences, and in none more than that of medicine, a too great readiness to generalise from a limited number of facts. One pathologist finds upon the dissection of one, two, or a half dozen subjects of a certain disease, certain post mortem appearances, and immediately crying εὕρηκα, publishes to the world the result, and his opinions are received as indisputable, untill another man comes forward with a greater number of "facts", many of them perhaps "tortured" for the occasion, and throws into the shade his predecessor and his opinions, and "rules for his time, sovereign of the ascendant." How oft, in the history of medicine have we seen this thing repeated!, and so it will continue, whilst medical men, too indolent to think and observe for themselves, or to put to the test the facts of authors, suffer themselves to be kicked about, as a foot ball, by every new writer; Indeed the higher the authority, the closer should our scrutiny be.

The opinion, that the cause of neuralgia consisted in increased vascularity, or vascular action in the neurilema, originated from Dr Parry, and he has been supported by many able writers in England, and continental Europe. Among the former we may mention Travers, Swan, Scott, Leyde, whilst on the continent the same opinion, was first advocated by M. Valdy. Andral quotes several cases, in which there were signs of previous inflammatory action in the nerves. "In a man, who, after running for a long time was attacked with violent pains in the back of both thighs along the course of the sciatic nerve, M. Martinet found those nerves remarkably red, enlarged, and firm". "In another, affected with sciatic n. he found the nerve of a violet color, with fluid blood interposed between its fasciculi". Dr Darwin say "I suspect the cause to consist in a diseased state of the nerve itself, or of its covering". I have already quoted a sentence from Armstrong where he speaks of inflammation attacking the nerve, which he calls rheumatism. A few pages farther on,* he says, it "especially attacks the sciatic nerve, and then is called sciatica"; indeed, this is now, almost universally admitted, as the pathology of sciatica, and

*Lectures p. 441

this complaint is now classed as one of the neuralgiæ. When the seat of this inflammation is somewhat superficial, we may detect it by some appearance of redness and an exquisite tenderness on pressure. But, the opinion was perhaps first expressed by Dr Armstrong, that tic douloureux was not an affection of the nerves of the face, but "a complaint of the brain itself, to which the disorder in the face stands in the relation of an effect." He says that this opinion was impressed upon him by the fact, that "in all the cases which fell under his eye, the affection of the face was attended and preceded by clear manifestations of cerebral disease."* In a more recent work, he says, "when a patient complains of wandering pains, you will in many cases find the origin of them, in the brain, or spinal marrow."† Mr Mart, in his work upon "Nervous Diseases", observes, "the probability is, that the source of irritation is more frequently in a portion of the brain; sometimes in those portions from which the nerves of the face have their immediate origin, - and sometimes at the origin of the nerves themselves." Preceding this last author, the works of Teale, Tate, and the Messrs Griffin had appeared, tracing the origin of

* Armstrong on Typhus Fever, 2nd American Ed. p 325

† Lectures p 683

neuralgia to a condition of the spinal marrow, manifest ing itself by tenderness on pressure at that part of the spine whence the affected nerve originates. What the condition of the spine is, upon which this state depends, is a matter of dispute with writers. Teale is disposed to consider it as depending on inflammation; he thinks it no objection against this opinion, that "inflamma tion ought to produce disorganization", and cites the in stance of chronic ophthalmia, to show that such are sult ought not always to follow. He gives, nor could he give but a few instances of post mortem examina tions, to substantiate his doctrine. This disease is so sel dom fatal, that we can not often have the exper imentum crucis of the dissector, to test our a priori opinions by; - and, even should the usual sequelae of inflammation escape detection, after death, we are not yet bound to deny the existence of some pre vious vascular action; - the defenders of this doctrine may alike take refuge with the others, behind "the minute structure of the nervous matter". We have not yet come to that incontestible knowledge of the primary essence of inflammation, as to lay down fixed rules, as to what we should, or should not

find after death. Even many of those, who contend loudest for making neuralgia a "functional disorder," speak of it as arising from some minute organic change; but, even, if we are to consider this change to exist in the "ultimate atoms of the nervous matter," we must presuppose ~~some~~ action of the vascular system to produce that change.

Although I am willing and ready to admit, that there are many cases of pure functional disorder, yet I believe the cases are not a few which depend on vascular action.

This view of the pathology tends to throw some light upon the connection of many symptoms, before difficult to be explained; - the occurrence of disordered stomach with facial neuralgia, may be attributed to the proximity of the origins of the par vagum, and fifth and seventh cerebral nerves. This tenderness may exist in a small circumscribed space of the spine, in several of the vertebrae, or along the whole length of the cord, according to the extent of suffering; though in the last case it is seldom we find an equal degree of tenderness at all points. The lady, whose case was given in a foregoing

part of this paper, is at all times, even from the contact of her clothes, or the least sudden bending of her body liable to pain in several of the dorsal, and a few of the lumbar vertebrae; but her whole spine is acutely sensible to pressure, and, during a paroxysm she is affected with great soreness in the neck. In this case, although this spinal tenderness is always present, the patient is by no means, in constant suffering from neuralgic pain; and, the same thing pertains to another case, which has come under my notice. This would therefore seem to stand in the relation of a constant predisponant cause, rendering the part more liable to the action of the exciting agents;- but under the influence of those impressions, we find the local tenderness increased,- at least such is the occurrence, in the above cases. It was noticed by the Messrs Griffin that this spinal tenderness is sometimes itself "symptomatic of other irritation, as intestinal, dental &c" "But" they observe, "even in many of these cases, especially when existing for any length of time, the spinal affection becomes a serious and absolute disorder, reacting on and increasing the disorder which gave it existence, or producing

a new train of symptoms proper to itself."

Although my remarks so far, may seem to warrant the belief that I contend for, what may be called, the vascular theory, exclusively, yet I wish not so to be understood. As limited as is our knowledge of the physiology of the nervous system, and, consequently, of its diseased actions, we are not prepared to say how far it may be disordered in its functions, without organic change; such disorders we daily see. But there is one fact to be kept in view, the connection of excitability of the nerves, with general or local debility, a condition depriving the part of the power to resist morbific impressions. Yet we should not be too hasty in charging the disease to this state of the system, for, although it may be a concomitant, it is some times, aye usually, the effect, rather than the cause, of the long continued, harassing pains.

Treatment. A review of the various exciting causes, and of the progress of this malady will show to us the necessity of a carefull and thorough investigation before we pretend to prescribe our remedies. The same consideration will reveal to us how futile is the belief, that any one remedy or class of remedies will avail for the

cure of all and every case of neuralgia. Yet do we not yearly see some new nostrum, or article of the materia medica, set forth as an universal and infallible applicant, not only to this, but in many other diseases; and that too by, so called, medical practitioners. Induced by their universal success in some few cases, they publish their practice to the world, without any perfect description of the particular cases, with their peculiar concomitants, in which it was employed; - others, with little or no discrimination, adopt the same practice, merely, because it came into notice, with a great name appended to it, and continue its use untill by the loss of some cases, they are led to throw it aside entirely; - thus, has many an excellent article been alternately puffed and condemned, untill ~~they~~ it have be come lost to mankind. The fable of "the archer and the arrow" should be ever present in the minds of medical men. In seeking in the books for a correct notion of the practice to be pursued in this disease, with a few exceptions, we find little that is satisfactory, - they all, to a greater or less degree, being written to defend some favorite theory, or trumpet some universal remedy; - to this, it is true, there are, not a few pleasing ex-

ceptions, - men who by patient observation, are enabled to time their remedies to the existing condition of things, - who can find no inconsistency in changing their plan of treatment, when the symptoms demand such change, and who will not use this or that medicine, because this or that name has been given to the symptoms before them. - Nothing can be more opposed to the true philosophy of medical science than the empirical practice of administering drug after drug, pursued by many in this disease. "The best axiom in physic", says Mackintosh, "is to get rid of diseased action as quickly as possible". To this, every man, who wishes to be considered a philosopher in his profession, will give a ready assent; - but, it surely cannot be considered as any the less philosophical, whilst we direct our main attention to the seat of mischief, to administer such remedies, as will, in some degree, blunt the expression of the symptoms excited as secondary to the local cause. Thus it is in the treatment of this disease; our indications are various. Searching with Argus eyes, for the exciting and proximate cause, we must, if possible remove the latter before it has

produced immediable organic lesion. Giving the proximate cause, as we do, in most cases to consist in inflammation, our remedies must therefore be such, as will counteract such a condition. Dr Armstrong*, with his ideas of the pathology of tic doloreux, was induced "to try the power of decided bleeding and purging", using both general and local bleeding; and applying "blisters, occasionally, to the scalp or nape of the neck". He states that this practice was successful in five cases of "six weeks standing and less; and in another of much longer standing, by being followed by calomel and opium". This practice, of local blood-letting, over the affected part of the spine, was followed out by Teale. Where the patient is robust, and the disease is recent, it is well to premise general blood letting; and then draw blood locally; in many cases, even of long standing, the relief afforded by the application of leeches, or, of seven or eight wet cups is most gratifying, "I feel like another being, after undergoing the operation", said a patient to me. Its well that the cups be followed by a blister, to keep up a contra-irritation; with the same view, but not to be preceded by the blood letting, some au-

* On Typhus Fev. 32

thors have recommended the use of powerfull epispastics; the tartar emetic ointment, the croton oil &c, and of late there has appeared, under the name of "Counter Irritant", a powerful article of this kind. Although the efficacy of these articles in giving relief is indisputable, yet, forming my opinion from the expressions of patients, where there is much tenderness and turmidity, the abstraction of blood should precede the use of these articles. The moxa has been used with success, in local neuralgia. — Whilst, thus directing our attention to the local disease, we may with great propriety administer anodynes either internally, or externally in the form of liniments to ~~both~~ the pain, and sooth the excited nerves. The whole class of narcotics have been used for this purpose, though ~~the~~ ~~the~~ the preparations of morphia, hyoscyamus, and conium maculatum have been particularly recommended; indeed, the two last have been said of themselves to have cured the disease. — Dr Fothergill in speaking of his practice, says, "the method I had pursued for the most part obtained but little relief, till I made use of hemlock in the cases above mentioned. Since that time I have had recourse to it, whenever the disease

occurred and for the most part with success." The use of hyoscyamus, originated with Meyhin; he gave it in the form of a pill, in conjunction with ext. valerian, and oxyd. zinc equal part of each; - his successfull cases were mostly those, in which the disease had not existed long, and were apparently cases of pure nervous disease. — When, after the reduction of the local affection, the neuralgia remains in its mitigated form, the use of tonics become proper; - especially where a languid, state of health, that prostrated weakened state I've already described. The best tonics are quinine or the preperations of iron. Strict attention to dietetic rules are here necessary; the food should be nourishing and easy of digestion; moderate exercise, active or passive, according to actual degree of strength, in the open air; - where the patient is strong enough to set in a carriage, travelling, change of air, and scenery; - sea bathing is also here of the greatest benefit. -

I have no doubt, that, with proper attention to the attending symptoms, such treatment, will afford relief, if not cure, most early cases. To be sure, where there are no symptoms of inflammation, where

we are convinced the case is one purely nervous, we have not the same indications for the use of anti-phlogistics. Where the exciting cause, is of the nature of those, I have called immediate, we can, of course, expect to do little more than palliate the symptoms, unless we are able to remove the exciting cause.

The practice, formerly recommended and pursued by some, of dividing the affected nerve, has now been restricted to its proper bounds; observation and experience having shown its inefficacy, except, where the disease arises from some local cause, a wound, where we can divide it, between the nervous centre and the situation of the exciting agent A review of the various exciting causes, I repeat, will show us how futile is the belief, that we can relieve, much less cure every case of this disease, by any one remedy, or set of remedies. It is only by a carefull investigation, of each individual case and its concomitants, that we can hope to arrive at any thing like certainty in our diagnostic and success in our treatment; universal success we can not expect; the fallability of man's judgement is not competent to the task; but, to render medicine what it most certainly is, an exact science, can only

be done, by a carefull investigation of individual cases. This I conceive to be the true philosophy of medical science, and by this alone we may hope to arrive at any degree of success, in this, or any other disease.

It is not alone in those cases arising from malaria that this periodicity exists; it is, as has before been observed, to be seen generally, in early cases, even where there is constantly present a local irritant, Mr Swan relates a case of periodical neuralgia, in a patient who had popliteal aneurism, for which the femoral artery was tied. "For five weeks previous to the operation, pain came on in the leg, about half past ten in the evening, and went off at two in the morning. It never returned after the operation". In fact, the exciting cause seems to have no immediate influence over the type of the disease in this respect, and we are to look for the cause in that peculiarity in the nervous system itself, exhibited alike, in health and disease, by which "all its actions alternates with periods of inactivity, and all increase of it with intervals of diminished power".

Pathology. The proximate cause of many cases of neuralgia will be evident, from what has already been said upon the exciting causes. It is a fact, now fully established, that pain exhibiting itself at the outer extremity, is an effect of an irritating agent, not seated in that part, but we are to look for the cause, either along the course of the nerve, or at its origin; such a cause, in ma-

my cases found in the presence of a foreign body, and in relation to the nerves, we must consider an aneurismal, and other tumors as such. I am well aware that this opinion has been combatted by some, and even by high authority in this school, for whom I have the most unbounded respect, and from whom I would only differ, where facts, bear me out. Constant and excessive pressure will most certainly give rise to paralysis, as regards the sentient, or outer extremity of the nerve, but the local effect of the irritating agent, may be, and is, in many cases, inflammation of the inner part prest on, thus giving rise to pain, which is referred by the sensorium, to the outer distribution of nervous filaments, involved in the local disease. But there is another consideration to be kept in view, that this pressure may not be of a degree to produce actual distention of the nerve, which, the experiments of Mr Swan show, will generally produce paralysis, but, it may be of a lesser degree, rather in the neighborhood than upon, or only occasionally touching the nerve, thus, by the irritation of presence, either acting mechanically upon the nerve, or exciting inflammation, in its covering or its proper substance. It is thus, by the extension of inflammation, that we

12

An Inaugural Dissertation on Iodine

Submitted to the examination of the Provost, Regents and Faculty of Physic of the University of Maryland for the Degree of Doctor of Medicine.

by

Edward M. Ball
of the City of Baltimore and State of Maryland

February 1841.

Of the various remedial agents of modern date which have engaged the attention of medical men, there is none which appears to have so great a claim to their attention as Iodine. When we consider the powerful action of this remedy in the treatment of Scrofulous affections, and the salutary aids, which it extends in the treatment of many other diseases, we cannot but express our surprise, and regret that a medicine of such valuable powers should be so little known, and so slightly appreciated. The fact is that to a large number of practitioners in this country, the therapeutical application of this remedy, and its mode of exhibition are so little known, that it is seldom or never used in the treatment of diseases by them. This is owing no doubt to the vague and unsatisfactory manner in which writers on this subject have treated of its various preparations, and modes of administration.

In continuing this subject I shall give a brief sketch of the natural and chemical history of Iodine, its pharmaceutical preparations, mode of exhibition, application, its effects on the system, and application to the treatment of diseases.

Iodine was discovered in 1812. by M. Coutois a Soda Manufacturer of Paris. Its nature was immediately investigated by Sir H. Davy and Gay-Lussac the latter particularly presented to the scientific world a very complete chemical history of it, and showed the great probability of its simple nature. Its powers as a therapeutic agent were shortly after tried, and these being found valuable, it came into use with many practitioners. In 1826 it was introduced into the Dublin Pharmacopoeia. In 1830 into that of the United States. and in 1836.

into that of the London College. As yet it has not been recognised as officinal by the Edinburgh College.

Iodine exists naturally in certain marine vegitables, particularly the fuci or common sea-weeds; in the animal kingdom in sponges, the oyster, and various other sea animals; in the mineral kingdom, in sea water and in certain salt springs. It was first discovered in the United States in the water of the Congress Spring at Saratoga, by Dr. William Usher; and afterwards by Dr. J. H. Steel who ascertained it to be in the state of hydriodate of soda. It has also been detected in small quantity in the Kanhawa saline waters, by Professor Emmet of the University of Virginia.

Of the mode of obtaining Iodine its chemical preparations and tests, I shall not give here, as it is fully discribed in most works

on chemistry: but shall only give an account of those preparations which are most commonly used in the treatment of diseases. They are the following

℞ Hydriodate of Potash ℈ij
Iodine ℈j
Aqua Distilla ℥viij M

The dose to commence with is thirty drops three times daily, increasing one drop at each dose every day, untill the patient begins to experience some uneasy symptoms, when the dose should be reduced to the quantity commenced with, or the medicine laid a side for a few days. This is decidedly the best prescription for the internal exhibition of Iodine that I have ever seen used, and is equally applicable to the different varieties of diseases. The iodurretted solution for external application is made

by ℞. Hydriodate of Potash ℥j. Iodine ℥iv. Aqua Destill ℥vj M. this is applied to diseased parts that require stronger excitement than usual, and may be made weaker or stronger to suit the sensibility of the part to which it is applied, and is a valuable lotion in Scrofulous ulcers, Ophthalmia &c. Cataplasms may be made by adding this solution to linseed and other meal. The iodurretted ointment is made by ℞. Iodine grx ij. Hydriodate of Potash ʒjv. Axunge ℥ij. M. this is used for dressing Scrofulous ulcers &c. by friction on enlarged glands Nodes &c. It may be made stronger or weaker as the case may require. The following is the prescription for the protoiodurret of Mercury ointment. ℞ Protoiodurret of Mercury ʒij. Axunge ℥ij M. this as the above may be strengthened or weakened, and is used in the same cases, but particularly in Syphilitic ulcers combined with Scrofula. The most concentrated solutions of Iodine that can

be made is composed of one and a half parts of Iodine, one of Hydriodate of Potash, an one of water known as caustic Iodine and used for touching excessive granulations &c. These are the only preparations which I have seen used, though there are many others which are no doubt very valuable, but these appear to be the most convenient for private practice, and equally efficacious in the treatment of diseases.

Iodine when taken into the system appears to have an action peculiar to itself. One of the best effects it exerts, is the tone which it imparts to the digestive organs bringing on a free and healthy secretion of the gastric juice, as is evinced by the increased appetite of the patient. This enables us easily to invigorate the constitution by wholesome nourishment, which is particularly valuable in Scrofulous patients, in whom the appetite is most Commonly deficient

When taken into the circulation it acts as a sorbifacient and alterative by imparting tone to the system generally, thereby increasing absorption and bringing on an healthy action in the secretory organs generally. It is also said to be a powerfull diuretic in some cases. This I have never seen seen, but a slight diuresis is almost always induced. These are its most common effects when given in small and well regulated doses, but when given in too large doses or the medicine is too long continued, it gives rise to painful, and even dangerous symptoms: such as pain in the stomach, a burning sensation in the oesophagus, dizziness in the head, and a peculiar restlessness on lying down: but these effects can only arise from culpable neglect, and the dose should be reduced or the remedy laid aside as soon as these symptoms are experienced.

In the application of Iodine to the treatment of diseases, there is none in which its salutary action is so conspicuously evinced as in Scrofula. This malady in whatever form it may make its appearance has always been considered one of the most unmanageable diseases known, hence in its treatment physicians have successively tried every remedy that in their opinions offered any chance of success. The number and variety of which, but attest too strongly the want of a certain method of cure, yet untill the introduction of this medicine an efficacious mode of treatment remained to be made known. But since the powers of this remedy have been tested Scrofula has been divested of most of its terrors. For it is now generally conceded that Iodine approaches as near a specific for this disease when taken in time as mercury for Syphilis. In administering this remedy

it should be given in very small doses, commencing with thirty drops three times daily and increasing as before directed. When the glands are enlarged and indurated the ointments should be applied by friction changeing from one to the other as the case may require. When the disease makes its appearance in the form of ulcers the lotion or ointments should be used, and when it attacks the bones friction over the diseased part should be used with the ointments: remembering in all cases that it is to the constitutional effects of this remedy that we are to look for the principal source of success. If therefore (as is generally admitted) Iodine has the power of curing Scrofulous affections of other parts: why should it not cure Scrofula of the lungs? I mean before tubercles are formed. How many do we see daily who are apparently enjoying the best of health,

whose blooming youth would almost make us belive that the fell destroyer did not lurk within a form so fair, but whom we know to inherit this predisposition from their ancestors, or in whome the practiced eye can detect this formidable desease lurking beneath this apparent glow of health, and who must ere long fall a victim to this horid malady. The desease in this form has always been considered incurable, and is therefore a fair subject for experiment, and should the opportunity ever offer, I intend to try the powers of Iodine in this way. There can be no objection to it, for reasonging from the fact that it does cure Scrofula of other parts, it would be reasonable I think to expect some beneficial effects when used in Scrofulous predisposition of the lungs. The great difficulty would be to induce persons to take the remedy in time,

for we will seldom find any person who is predisposed to Scrofulous Phthisis that will acknowledge it, and therefore will take nothing to prevent its development. Iodine has every thing in its favour, it is not nauseating to the stomach, nor does it require the patient to be a tale confined, and there are no evil consequences to be apprehended from its proper use, but on the contrary the most beneficial effects may be expected

In the treatment of Tinea Capitis this remedy has been used with the most beneficial effect. I have only seen two cases in which it was used, and in both cases an entire cure was effected. It was given in the form of the aqueous solution as before directed, and the Iodurretted ointment applied to the shaven scalp every other day

In enlargement of the spleen after the system has been under the influence of mercury

the administration of the solution, and the application of the ointment by friction over the diseased organ, has had the most salutary effects.
Of the many cases that I have seen treated in the Baltimore Infirmary by this method, not one has left the institution without being decidedly benefitted, or entirely relieved, and what shows still more fully the powers of Iodine in this disease, is that were generally cases of long standing, and had resisted all other modes of treatment.
Iodine has been also used in secondary Syphilis with the most decided advantage after the full influence of Mercury. I could enumerate several cases that have been successfully treated in the Baltimore Infirmary with this remedy, after all others had failed. These were cases in which the disease had made its appearance in its worst forms, such as ulcerations of the throat,

extremities, palatine and spongy bones, and nodes on the bones in various parts, in one case particularly the patient was unable to leave his bed for four months, who was almost worn out with pain, his limbs were unable to support the body, and to whom sleep had been a stranger, unless obtained by the use of powerful anodynes. It is in cases like this that I have seen Iodine acting like a charm, under its influence the ulcers were healed, the nodes absorbed, the strength regained and the disease entirely eradicated by the simple exhibition of the solution, and in ulcers of the throat a gargle made of about half the strength of the solution was used.

An
Inaugural Dissertation
on
Scala Cornutum
Submitted to
the Examination of the
Provost, Regents, and Medical Faculty,
of the
University of Maryland
for the
Degree of Doctor of Medicine
by
James A. Reed
of the City of Baltimore and State of Maryland
March
1841.

To

Samuel G. Baker, M.D.

Professor of Materia Medica, and

Therapeutics

in the

University of Maryland

This Dissertation is inscribed

As a slight tribute of respect, and

gratitude, for the many

favours extended to

his humble Servant.—

James A. Reed

The nature and origin of the Secale Cornutum have given rise to three distinct opinions:—

First — It is considered by Poissier, to be a morbid change, a modification of the seed of particular plants; more especially the common rye.

His reasons for believing it to be such, were, that he found seed, which were one half sound rye, and the other half ergot — also, that its chemical composition, approximated nearer to the seed of the plant, upon which it was found, than to those of any other vegetable substance.

The second opinion, is, that the spurred rye, is an excrescence, produced, by the sting, and deposition of the eggs of certain insects.

And, thirdly — that it is a parasi-

-tic Fungus, occurring in the glumes of the rye, of the genus Sclerotium, and natural Order Fungi of Linnaus The profession generally have coinci-ded in this opinion. Ergot grows abundantly throughout the United States, and, in most of the kingdoms of Europe. It occurs, in a cylindrical form, tapering at the extremities, occasionally straight, so-metimes bent, but, most commonly curved, in the shape of a crescent, with a longitudinal groove, on bo-th sides, from four lines, to one in-ch and upwards, in length, and about two or three lines in diam-eter; of a violet blue, or blackish colour, externally, and of a dirty wh-ite internally, breaking with a sm-ooth fracture. When pulverized,

it imparts a peculiar odour, which titilates the nostril, similar to tobacco. It is of a mealey taste when first taken into the mouth, becoming disagreable, nauseous, and slightly acrid, and produces a disagreable impression on the Fauces. When exposed to the flame of a lamp, it burns with a white flame, and lets fall an oleaginous substance, emitting a dense black smoke, and smelling like toasted, or burnt bread. It should be kept in a vial, or bladder. If carried in paper for a short time, the paper will become nearly saturated with oil. I am of the opinion, that after the oil has been taken up by the paper, the remaining powder is not as powerful as if, no oil had been extracted from it.

The spores is of a brownish violet colour. Increased moisture favours the production of the Secale-Cornutum; this production is more abundant in some districts than others.

From the best Chemical analysis, it appears that this article contains—

First — a pale or fawn yellow colouring matter, soluble in alcohol, and tasting like fish-oil.

Second — a white oily matter, of a sweetish taste, which is very abundant.

Third — a violet colouring matter, insoluble in alcohol.

Fourth — an acid, probably the Phosphoric.

Fifth — a vegito-animal matter.

Sixth — a small quantity of free ammonia, which can be obtain

-ed at the temperature of boiling water.
It was known in France as early as the year 1774, and had been successfully used by some female practitioners, and afterwards by a regular Accoucheur of Germany.—
It was not however reduced to scientific form until Dr. Stearns of Albany, N. York, gave an accurate description of its nature and peculiar virtues: Hence the honour of first introducing it to the medical world, belongs to him.
There is no article perhaps of the Materia Medica, respecting the virtue of which, there has been so much dispute, and such a past diversity of opinion, as upon the present subject, of our

consideration: "Whilst its virtues and praises have been lauded to the skies, on the one hand, it has been condemned, as worthless, pernicious, and poisonous on the other. "We have the authority of some of the most eminent gentlemen of the profession, that the Secale-Cornutum possesses no power in expelling the Fœtus from the womb, and that it is wholly inert; whilst others standing equally as high on the pinnacle of Fame, have declared that its employment in cases of this kind, is too much neglected, and that it is an invaluable agent. It seems as if all the gentlemen who have noticed this article, have been too zealous in

their opinions respecting its utility. They have been too extravagant in their descriptions of the effect of this agent — I do not accuse them of giving a knowingly false statement of its effect upon the animal economy (some peculiar circumstances might have arisen) to have caused them to vent such conflicting opinions.
It is not my desire, (if I was capable) to pluck one laurel from the wreaths that Fame has placed upon their noble brows, I only wish I was able to disperse the cloud that has but for one moment bedimmed their lustre.
In continuing this subject, I shall endeavour to avoid all extremes, and "nothing extenuate, nor set down

aught in malice".
As my acquiance with this article has not been sufficient to warrant an opinion based upon actual observation, I cannot, of course, add one link to the chain of evidence, either for or against its utility as an abortive; but reasoning from the evidence already given by others, who have had an opportunity of viewing its effects upon the system, I am inclined to believe it possesses valuable and powerful effects as a uterine accelerator.
It has been argued by some gentlemen, who stand at the head of the profession, (and for whose opinion I have the most profound respect,) that the uterus is not mu

-scular, and consequently, the Uterus not being muscular, this agent cannot exert any influence over it. It is not my place here to discuss the "muscularity" of the Uterus, it is a fact generally admitted by the profession, and in my humble opinion, no person, who has ever felt the contraction of the womb upon the hands, can entertain the slightest doubt on the subject.
But admit that the Uterus is not muscular: Does it follow that this article has no power to expel the child, or facilitate its progress from the womb? Certainly not — for if the womb has no muscular fibres, certainly the abdominal muscles must be the principal agents in effecting the delivery. Might not the secale

Camotum exert an influence over the em? It does; and that it does exert an influence over the abdominal muscles is easily proved by the violent and painful contraction of these muscles, when vomiting is produced by this article, by administering it in too large a dose. Others of the profession urge as an objection to its employment, that it sometimes produces much mischief, and frequently causes the death of the child. If this be true when administered by a skillfull practitioner, then indeed would it form a very serious objection to its employment; but I am inclined to think that this is not the case. That it occasionally does harm, in the hands of those not skilled in Obstetrics, I have no doubt;

but surely this cannot be cast into the Balance, and weighed against its employment.
Another argument advanced against its administration, is that it is apt to cause a rupture of the womb. To lay aside this objection it is only necessary to say, that like any other powerful article of the Materia Medica, it must be given at the proper time, and in a proper dose; it should be given when the os uteri is dilated, or is in a proper state to dilate.
The cases in which it seems to be more particularly applicable, are, where abortion is about to take place, with much hæmorrhage in early pregnancy: In this case it shortens the sufferings of the

patient, and by its contractile influence over the uterus, lessens the danger of sinking, by closing the mouths of the bleeding vessels.

In cases of alarming hæmorrhage, near the close of the gestation, not occasioned by the attachment of the placenta, over the os uteri, and not accompanied by efficient contractions.

In puerperal convulsions, in which a speedy delivery becomes necessary, the parts being soft and ready to dilate.

In lingering labour, when depending on the want of contractions, the parts being properly relaxed.

When the placenta is retained, for want of contraction.

Ergot should be given to patients liable to hæmorrhage, after delivery; In this case it should be administered in doses of about ⅙, about thirty minutes before labour would be expected to terminate.

In all these cases it is of great importance, and of signal service in enabling nature to throw off her burthen:— and in the language of Drs. Ebule, ergot may indeed be regarded as a fit substitute for the Vectis and Forceps, in many instances.

Ergot has been used to suppress excessive menstruation, on account of the contraction produced by its use. It has also been used in Gonorrhœa and glet, but with

little or no advantage: I never saw a friend of a case actually cured by its employment.
When taken in an over dose, ergot at first has a mealy, and then a rancid taste, biting, and nauseous, causing the fauces to become dry: This symptom, may be relieved by milk. The patient experiences a feeling of lassitude, and weight, in the region of the stomach, vertigo, painful and excessive vomiting, delirium and sometimes death. When the patient is under its influence, she experiences a series of continued and unremitting contractions. It should be given in the dose of 13 every 15 minutes; or in cases of urgent necessity, a larger dose must be given.

An Inaugural Dissertation on Erysipelas

Submitted to the Examination of the Provost, Regents, and Faculty of Physic of the University of Maryland for the Degree of Doctor of Medicine

by
Mills M. Jordan
of the
County of Isle of Wight and State of Virginia

February
1841

The skin is a complex organ composed of several layers. first the cuticle, next to it we have a layer of lymphatics forming a complete plexus, which resembles a silvery membrane. They are vascular and vital organs. Under them is to be found the rete mucosum, and lastly the cutis vera. The epidermis, or cuticle is membranous in structure and entirely devoid of blood vessels. It has by some Anatomists been considered a secretion from the cutis vera. Erysipelas may be recognised by a diffused redness of the skin accompanied with some pain and tumefaction; the redness disappears if pressure be made with the finger but immediately returns upon its removal; unless however the cellular tissue be involved, then no such

effect takes place. This disease may be local or general, sometimes making its first appearance on the forehead, nose, cheek, or chin and from thence spreading itself over the whole face, or it may first attack one extremity and extend over every part of the body. It is said to shift its place much more frequently than any other species of exanthemata. This disease has been divided differently by different writers, but for our purpose we shall adopt the simplest plan, that of dividing it into two forms, Simple and Phlegmonous. In the former variety certain precursory symptoms usually occur such as lassitude, indisposition to take exercise, chills, nausea, hard and quick pulse &c At a very early stage the mucous mem=

=brane shows itself a participator in the disease, known by the heat experienced at the epigastrium, and by the white fur being discovered on the tongue: both of which generally disappear in the course of two or three days. The eruption makes its appearance about the third day, with increase of which we usually have the febrile symptoms more fully develloped and also diminution of fever with a decrease of the eruption, differing in this respect from the other exanthemata. but, though this is a general rule still it is not without an exception, for sometimes while the eruption is but slight, febrile symptoms are excessive. The eruptions are of a bright red colour and circumscribed: with the finger you can feel the derma turnified and injected; there is also

heat and a sense of pain in the part; on the fourth day these begin to decline and the disease terminates in resolution and desquamation. or sometimes, we have the occurrence of vesicles which leave a brown crust. When the disease is slight no danger should be apprehended, unless there be metastasis to some internal or other important organ, which has been known to terminate in death in a very short time; though immediate death is by no means a constant result of metastasis even to the brain itself. Vesicles are sometimes formed which produce sloughing and terminate in gangrene: this is not so apt to occur in simple as in the other variety of the disease. In persons of a lymphatick temperament it may occur from slight scratches - it may

also appear on the mammæ of females from sucks bites. When connected with dropsey it is exceedingly difficult to treat it with success. Phlegmonous Erysipelas occurs generally on the extremities differing very much from the simple form of this disease, the subcutaneous cellular membrane being implicated, its attacks is far more severe than in the simple form. In phlegmonous erysipelas we find a full bounding synochus pulse. It may terminate in resolution in five or six days or in suppuration There is a pulsating pain owing to the formation of pus either immediately under the skin or more deep seated the suppuration being circumscribed or spreading through the different regions of the body modifies the disease itself thus when on the face it is dangerous

and frequently accompanied with wandering delirium of furious madness or profound coma. When it travels from the face to the scalp, on account of its proximity to the brain active treatment is called for. There is a symptom of erysipelas of the scalp which of all others is worthy of notice viz liability of the lower part of the cellular membrane to take on suppuration. When it occurs on the mammae we have first a small pimple which spreads itself gradually and finally ends in suppuration — in this case active treatment is also indicated. In phlegmonous erysipelas of the limbs the subcutaneous cellular tissue is involved. This is complicated with a derangement of the cerebrum, with gastro enteritis, and sometimes with

inflamation of the parotid gland.
The causes of this disease are numerous; it may be hereditary as in the various leprous diseases, Some persons are constitutionally predisposed to erysipelatous affections; climate exercises a predisposing influence over this disease. Thus, the inhabitants of the West Indies are far more subject to it than those residing in a northern climate. This disease is said sometimes to rage as an epidemic, from the inmates of hospital wards being universally attacked by it; this is doubtlessly produced from a want of cleanliness and proper ventilation which too often is not sufficiently attended to. Certain articles of diet also produce the disease - strawberries & milk are sometimes the cause of it. Vegetable acids have a like tendency. Our prognosis varies according to the mildness or severity of the attack; in slight cases we may expect recovery about the eight or tenth day. When however the disease

is complicated with any other, our prognosis is very unfavourable - with dropsy it is exceedingly dangerous. The sudden disappearance of the eruption is by no means a favourable symptom. When phlegmonous erysipelas assumes a suppurative and gangrenous form, great danger of losing a limb is to be apprehended, if not the loss of life.

In simple erysipelas our plan of treatment should be strictly antiphlogistick, which, by the aid of cooling drinks will enable the disease to run its course without endangering the life of the patient.

When the face and limbs are attacked, and we have a full bounding pulse accompanied with pain of the epigastrium, the lancet should be had recourse to: in this case we should bear in mind that it is not the skin but the internal organs in which the disease is seated, therefore our remedies should be directed to them - not only must

grain doses every ½ or every hour have proved beneficial. If after copious blood letting there be a determination of blood to the head, the drastic purgatives should be resorted to; among them may be mentioned the aloetic preparations. Scammony combined with calomel is said to be a useful remedy. All of these however should be used with caution since they act by producing revulsion. Diaphoretics are not to be very much relied on in erysipelas. The milder articles of this class of remedies are said to be beneficial in the simple form accompanied with itching, but their place may be very well supplied by sprinkling a little powdered starch over the part affected.

The more severe form of erysipelas is that which occurs in jails, hospitals, and other places that are ill ventilated, which, when it assumes a typhoid state accompanied with a total prostration of the muscular system, with low muttering delirium and fœtid stools, should be treated in a very different manner from that ordinarily

pursued in other forms of the disease, in this case bleeding and active purgation would doubtlessly prove injurious. Revulsion must now be resorted to. The lower extremities should be wrapped up in blankets previously soaked in hot water but perfectly dried before being applied to the part. Diet should be light as gum water, acidulated drinks, &c. Bark including all tonics may be beneficially used in this variety. Stimulants are also useful. Concerning local applications there is great diversity of opinion, some suppose that they are altogether useless. If they do not affect a cure they may at least tend to relieve the disease. At the head of local applications stand blisters which should be applied when the disease assumes a suppurative form. When blisters are applied it should be done with the utmost caution, taking care always to place them in advance of the affection

in order to arrest its progress. Preparations of lead serve to cool the skin, foremost among them has been recommended Goulard's cerate. In the oedematous form bandages have been found serviceable. In the Phlegmonous variety connected with gangrene incisions are required and in making them the knife should be plunged into the cellular tissue boldly and deeply, though not hastily & rashly.

1841

1481

An
Inaugural Dissertation
on
Bloodletting
Submitted to the examination
of the
Provost, Regents, & Faculty of Physic
of the
University of Maryland
for the
Degree of M. D.
by
James S. Stevenson
of
Kentucky

February 1841

It is with much embarassment, that I undertake a duty, which devolves upon me, in compliance with the laws, which govern the University of Maryland. But when I reflect upon the high, and noble character of them, under whose critcism it has to pass, and the object for which it is written, I am admonished to go on. And from the many subjects which belong to the science of medicine, I have chosen bloodletting for the present dissertation, though I feel unable to do the subject justice.

I propose to take a hasty view of its early history, the theories of the present day, and make a few practical remarks upon its use; and in doing this, I must avail myself chiefly of others experience.

Of all the agents, which have been discovered, and used in the healing art, none seems to be more worthy of attention, than bloodletting.

Like many other valueable remedies, it has been a theme of controversy, for centuries.

Hippocrates was familiar with this remedy, and often used it, in the treatment of diseases

upon principles, some of which, are sanctioned by the best modern writers. Though unacquainted with the circulation, he boldly resorted to this remedy, under the following circumstances:

1st To get rid of the humors as he called them, when there seemed to be an excess.

2d To cool the body, when preternaturally warm.

3d To produce a free motion in the fluids, of the body when there seemed to be a stagnation, as in apoplexy, and parralysis.

4th To change the determination of the blood to, or from any particular part of the body, as circumstances might require.

Celsus, Galen, and many of their cotemporaries, though imperfectly acquainted with pathology, physiology, and anatomy, appear to have had considerable knowledge of its influence. Some views entertained by them were erroneous, yet many reasons, they assigned for abstracting blood, are worthy of notice.

Hippocrates bled none, but young, and robust subjects. In acute diseases, he bled once to syncope,

or untill the blood changed its color while flowing Celsus contended with more propriety, that a vigorous infant, a robust old man, and a strong pregnant woman bore this evacuation without danger, or inconveniences, always considering the strength of the patient, which sometimes will not admit of this evacuation, when the nature of the case seems to demand it. Galen drew blood for the same reasons, but to a far greater extent, than his predecessors, and was the first, who mentioned the quantity necessary to be taken. Under ordinary circumstances, he limited the quantity from eight, to twenty ozs; but when the symtoms were violent, the patient might be bled to syncope, or to the extent of fifty, or sixty in one day. This practice corresponds very much with the best modern views upon this subject.

Having thus made a few brief remarks upon the early history of bloodletting, I will pass over many centuries centuries of its history in silence; and speak of the improvements, and views entertained upon the subject, at the present

day. It appears from the experience of the most learned, that there are but few diseases in which bloodletting cannot be beneficially employed, under some circumstances. But like other remedial agents, it may be used for the benefit, or harm of the patient according to the judgement of the physitian. In many cases where this remedy is indicated, and is not used at the proper time, the lives of patients are sacrifised. Or where blood is taken improperly, as in a case of typhus fever, or concussion of the brain, when the abstraction of a few ozs. blood would be very apt to place the patient in a condition from which, it would be very difficult to rouse him; while the judicious use, of this remedy, arrests the progress of diseases which otherwise would be difficult to treat or wholly unmanageable.

Now in order to use this remedy successfully, it is necessary to be acquainted with the following circumstances.

1st. The different modes of abstracting blood, and

their effects. 2d The circumstances which demand this evacuation. 3d Its application.

Several methods of abstracting blood have been used, differing in effects, and consequently in application. 1st Phlebotomy or Venesection. 2d Arteriotomy 3d Scarification 4th Leeching

The various purposes, for which bloodletting is resorted too, as a medicinal agent, are more effectually accomplished by venesection, than by any other mode of depletion. If, for instance, the object is to take away blood rapidly, so as to produce syncope; or where we wish to abstract slowly a large quantity of blood at one bleeding, and make an on lasting impression on the system; venesection is the proper mode, for we can make a free, or small orifice as the case may require, and in this way, accomplish all we desire.

I need not dwell upon arteriotomy, for it is seldom used; and I would not resort to it except in cases of apoplexy, and then only after having failed, to accomplish what I wished for, by free incisions in both arms. I would partially dis

side the temporal artery, and apply a cupping glass.

Cupping is the next mode of abstracting blood, and far less valuable than venesection; yet under many circumstances, it is useful both as a counter irritant, and evacuent. After the free use of the lancet in inflamatory diseases; it often becomes a valuable auxiliary. It is also usefull in many local affections of which, I will speak more particularly hereafter.

In regard to the use of leeches, there has been and still is a great difference of opinion; some contending for their superiority over venesection in all febrile diseases, while others, with more propriety I think, recommend the lancet untill the increased action, of the heart, and arteries, is lessened; then we may resort to leeches for removeing local symptoms; which might remain. It also becomes a valuable agent in local effections and particularly in diseases of children, where the application of a few leeches will accomplish all that venesection will in

adults. I shall only speak of the most prominent symtoms, requiring this remedy. Dr Cooley says, that in all cases, where we have a full, strong, or small, tense pulse, it is proper to bleed; no matter what the disease may be called: This is generally true; though it is shown, that there are cases, where it would lead to erroneous practices, as in aneurism, calculi in the lungs, or liver, effusion in the lungs or brain; where the tension of the pulse, cannot be changed by the lancet; hence it becomes necessary; before the application of this remedy; to consider, all the symtoms, of a case, the strength, age, and habits of the patient, the condition of the pulse, the stage of the disease, the nature of the organ effected; and the cause that produced it. After properly considering these conditions one of two plans of treatment, are generally pursued commonly called antiphlogistic, and stimulation. If the former plan be resolved upon; bloodletting almost invariably is the first selected remedy. Here two questions are suggested by the condi-

tion of the patient, for consideration; viz. What quantity of blood is to be taken: and What mode of depletion will be most beneficial to the patient? Having briefly considered the different modes of bloodletting their effects, and the circumstances governing its use, I will now speak of its application to different pathological conditions, and first: of them, that occur in the brain and its membranes: from the large quantity of blood, circulated in this organ, the delicacy of its structure, the danger of disorganization, from inflamation; and when this condition exists, characterized by a full, strong, pulse throbing pain in the head, intolerance to light, flused face, or where the patient has a severe pain in the head dilatation of the pupils delirium and a tense frequent pulse; prompt, and efficient bleeding is our ground of hope. It must be repeated as often, as symptoms following reaction demand it.

Children require this remedy oftener than is generally supposed. During the past summer a case came under my notice, of a child only eight

ten months olds which was laboring under the symptoms of violent pneumonia, and twelve oz. blood were taken at three bleedings, with the happiest effects.

In apoplexy is our sheet anchor, and upon its free use, depends the life of the patient.

In pneumonic affections, bloodletting becomes a valuable agent, and if the lancet was used with more freedom, many cases of phthisis would be avoided, for no doubt it often ensues ~~for no doubt it flow~~ crises for want of proper depletion in the first stages, therefore in all cases, where we have a full, strong pulse, difficult breathing, dry hot skin, with violent paine in the chest, the lancet is the agent upon which I would rely. Perhaps I could not describe the course, which I would pursue under such circumstances better, than by relating two cases which came under my notice; the first was a man, laboring under pleurisy in its most violent form; he requested me to bleed him, saying he would die before a physician could be called

I became alarmed, and determined to bleed him. I took twenty ozs of blood, and the symptoms subsided; but in about an hour, the pulse began to beat hard and they all returned as violently as before. I bled the second time taking thirty ozs. blood, and causing syncope. From that time, the patient convalesced, and the next day was in perfect health.

The other was a very delicate lady, who was laboring under pneumonia, with a dull pain in the chest, difficult breathing, slight headaches dry, hot skin with a tense pulse. She refused to be bled when I first saw her; but on the following night, about 12 O'clock I was called to see her again: the symptoms were so violent, that she was unable to breath in horizontal position, and with much difficulty in the sitting. I prevailed on her, to be bled, and before ten ozs were drawn, she breathed with ease, and freedom; the blood was stopped, the patient went to sleep, from which she awoke quite well.

Bloodletting is a valuable remedy in most of the

inflamatory diseases of the alimentary canal. Though inflamation, in different parts of the primaria, is differently named; yet the gen. plan, of treatment, is the same, being modified only, to suit the particular condition of the case. When the stomach is the seat of high inflamation, manifested by a burning pain in the stomach, red, tongue, great thirst for cold drinks, constant emesis, dry, hot skin with a small, tense, rapid, tense, the use of the lancet is indispensible. I saw a case with the above symtoms, in the most violent form, last summer, when all the attempts to quiet the irritibility of the stomach, with medicine, failed twenty ozs. of blood were taken which moderated the symtoms; but when reaction came on; they returned twenty ozs. more were taken ~~more were taken~~ and the symtoms were suspended, for a few hours, but again they returned with reaction, thirty ozs. were now taken, after which, the patient convalesced, and in three days was entirely well, after the loss of seventy ozs. of blood in eighteen hours.

The result of this case, proved the correctness of the practice, and also the necessity of prompt action under some circumstances.
In peritonetis it is equally valuable, the opinion of the French physiologists notwithstanding.
Diarhea, and dysentery are also inflamatory diseases of the alimentary canal, and very often; relieve themselves by pouring out blood, or mucous, from the dellicate vessels yet there are many cases, where it is necessary to take blood from the arm. But when they assume a chronic form; and the patient becomes reduced, by the constant discharge local depletion is the best remedy. A case of this kind came under my notice, about two months ago. It was of five months standing, and had resisted all the usual remedies; a few leeches applied to the anus with the happiest effects.
In diseases of the liver, whether it be congestion, or inflamation, depletion is of much importance: both in chronic and acute hepatetis and congestion of this organ. I con-

sider bloodletting of first importance, though calomel is considered so, by some. In acute hepatesis it is of primary importance, and renders mercury more effectual. In the chronic form of the disease, it is not often necessary, but there are cases, which cannot be managed without it. Leeching and cupping very often become necessary, in cases where there is not much excitement. In malarious districts, where intermiting fevers are prevalent, the liver, and spleen are very often enlarged in consequence of congestion or induration, and when this is the case, it is always for want of proper evacuation, in the early stage of the disease; and whether it be of long continuance, or not ~~if the use of~~ the lancet ~~it~~ should be used freely before the administration of mercury, as is proved by the following case. The patient had been laboring under intermiting fever of the quartan type, for about five months. He was treated in the usual way, with calomel and tonics, of va-

rious kinds by a medical gentleman of high standing; but to no advantage. The patient became tired of his medical friend, and sent for me and asked my advise. I called the next day and found him in a paroxism with a full, strong pulse; dry, hot skin, slight delirium, with the liver, and spleen enlarged. I stopped the use of tonics, took about thirty oz blood, which was repeated at each return of the paroxism, four times after which the paroxism did not return, and the patient was entirely well, in less than three weeks. In many febrile diseases, which occur in malarious districts during the autumnal months, bloodletting is a valueable agent. The mildest form does not often require this mode of depletion; but in all cases, where febrile action is violent, with a full, strong pulse, the lancet is indispensible, and should be used freely in the early stages of disease or not at all; for very often we see fever in forty eight hours, passing through all the types, synocha, to typhus, and in the

last stage, bleeding would be inadmissible. It is useful in synochal fevers. It is also useful, Nephritis, Cystetis, Rhumatism and Gout.

Valueable as this remedy undoubtedly is in the hands of the unskillful, It is productive of much mischeb and this will account, for its reluctant use by many. It is my opinion, that if the circumstances of the case be properly investigated, and due care taken to adapt the remedy to the particular condition of the patient, It may allways be practiced boldly, and without fear of consequences.

An

Inaugural Dissertation

On Opium

Submitted to the

Inspection of the Provost Regents and

Faculty of Physic

of the

University of Maryland

For the

Degree of Doctor of Medicine

by

Jacob M. Houck

of Baltimore.

Feby 26th 1841 Md.

The entire design of our profession is the cure of disease; and the restoration of functions, which may be disordered to their natural healthy state. In the various morbid conditions which arise; there are certain indications which present themselves to the mind of the physician, by the fulfilment of which they can be relieved and a cure effected. There are certain agents with whose properties he has become acquainted; which it is necessary that he should employ in order to bring about the result. In their employment; it is necessary that he should fully understand all their properties, their effect, upon the human system, and the way in which they produce that effect. In their adaptation to particular cases of disease; it is necessary that he should ascertain the exact seat of that disease, its nature and as far as he can, the extent of the ravages it has committed. When he has fully possessed himself of these data of information, knowing the difficulty which

exists the agent which is capable of removing that difficulty, and the proper method of using that agent. He is armed with all the material for the full exercise of his profession. In looking over the class of Narcotics, I see none so worthy the attention as that of Opium, but before I take up this particular article, I will first speak of the "Modus Operandi" of this class of medicines, and then pass to the most important article Opium.

What are Narcotics! they are generally defined to be those agents, which first excite and then diminish nervous action, and in appropriate doses Stupefy.

The fault in this definition appears to me, to have arisen from associating too intimately the action, of this whole class of medicines with the action of Opium, the most useful member. Among the Narcotics, we find Hemlock, Henbane, Digitalis and Hydrocyanic Acid, which are all considered important articles of this class, but it appears to me that they exert no perceptible

stimulant effect, but seem to have a direct anodyne sedative action.

I should define them to be those medicines, which lessen the sensibility of the nervous system, and which generally produce sleep, and whose sedative effect in some instances, is preceded by excitement. There is no doubt that Narcotics produce their impressions principally on the expanded nerves of the surface, to which they are applied and there is as little doubt in my mind, that they are also absorbed into the circulating fluid, and carried to the brain to produce their impression there.

This is evident from one fact, that their anodyne influence, continues and increases for so long a time after their operations it is well to recollect too, that when any substance is taken into the circulation which produces so prompt and decided an impression as Narcotics generally do, that they are all the time making this impression, on all the nervous extremities so

beautifully and delicately ramified, over the lining membrane of the vascular system. Narcotics then operate in two ways. Viz. 1st By direct impression, produced on the nerves, and conveyed to the brain through their means. 2nd By absorption into the general circulation.

What effect is produced when a Narcotic is exhibited? (with some exceptions) if the dose be small, there will follow an exhilerated excited state of the system, frequent pulse, a glow on the surface, an increased brilliancy of the mental powers and so well known is this quality, that it is customary for many persons, both male and female to use it habitually, and rely upon its operation to render their conversation lively and agreeable. If the dose be large the system generally sinks away without any perceptible excitement, if it exists at all into a delightful forgetfulness, then into a sound sleep, the pulse becoming slow and full, the skin relaxed, and whatever

source of irritation may exist in the body, is no longer felt, and when the patient awakes, we find that his mouth is dry, the secretions generally contrary to that of the skin have been suspended, and his nervous energy seems to be prostrated, his stomach has lost its wonted appetite, there is a fullness of the head, a dullness of the eyes, and in short the "tout ensemble" can never be mistaken by any one, who has ever witnessed the operation of a Narcotic. and in those Countries where their use is habitual, this appearance becomes almost National. If the dose be excessive, this deep sleep is destined to be an eternal one, his breathing becomes slower and fuller, a perfect torpor, takes possession of his faculties, and it would be as easy, to wake the cold marble, as to raise him from the deep lethargy into which he has fallen, his face becomes turgid, his eyes injected, his brain is overwhelmed,

and death closes the scene. The most important article of the class of Narcotics, is Opium, which is the concrete juice of the poppy, the papaver somniferum, of the class Polyandria, order Monogynia, Natural order Rhadeae a very common plant. It was thought to be indigenous to Asia, but it is now found in many other regions. It is principally from Persia, Arabia, and Turkey, that is obtained for our use, that received from Turkey, being regarded as the best. The manner in which this drug is collected, in the east is as follows: When the capsules are about half grown, at sun-set, they make two longitudinal double incisions, passing from below upwards, and taking care not to penetrate the internal cavity. The incisions are repeated every evening until each capsule has received six or eight wounds: they are then allowed to ripen their seeds. If the wounds were made in the heat of the day, a cicatrix would be too soon formed the night dews

favour the distillation of the juice. Early in the morning, old women, boys, and girls, collect the juice by scraping it off, and deposit the whole in an earthen pot, where it is worked by the hands in the open sun-shine, until it becomes of a considerable thickness. It is then formed into cakes, of a globular shape, and of about four pounds in weight, and laid into little earthen vessels to be further dried. They are then covered over with poppy or tobacco leaves and thus dried, they are fit for sale. In this, as well as, in all the vegetable remedies, there has been an attempt, to separate from the inert mass of woody fibre, gum, resin &c, those substances, which impart to the medicine its active properties. These have been called the active principles, and in many cases they have ~~been~~ almost entirely substituted, the use of the native article.

Two substances of this nature are found in Opium, Morphine and Narcotine.

It was at first thought that Morphine

contained within itself entirely the sedative powers and Narcotine the unpleasant exciting properties. If this were really the case, the discoverer would have conferred on the profession, the most perfect control over the operations, of this most important agent. But it appears not the fact. For Morphia is not perfectly free, from the stimulating properties of the drug itself. It however has these advantages, it is not so apt to disagree with the stomach, or to give rise to those unpleasant consequences, which in some particular cases it is so desirable to avert. But there is one circumstance which will always exclude it from common use. its extreme costliness in comparison with Opium itself, as long as this drug produces a certain happy result, in accordance with our wishes. in ordinary cases, the slight advantage gained by the use of Morphia, would not justify additional expense. Morphine exists in the form of Meconate of Morphia, that is in combination

with Meconic acid. It is entirely insoluble, which Opium is partly soluble in Water, Wine, Alcohol, Vinegar &c. The mode by which Morphia is obtained, and principles upon which this process depends, is very important, not only so, as far as this one Article is concerned, but because the same principles apply to nearly all vegatable substances, and the process of extracting their active agents, is conducted in the same way. These active principles or alkaloids, or vega=table alkalies, as they have been termed, almost uniformly exist in Combination with some acid, as Morphia with Meconic Acid, We know many substances, which have for these acids a strong affinity, the two most Conspicuous of which are Ammonia and Magnesia if these we bring together in solution, the Meconate of Morphia, and the ~~Ammonia~~ if the Meconic Acid prefers the Ammonia, or in other words has a greater affinity for it, they will Combine, and the Morphia itself which is not soluble in water will fall, to the

bottom, or be precipitated. this is actually the case, and if the Morphia is not quite suff-
-iciently pure we can dissolve it again in any other acid, add to it another solution of Ammonia, the Ammonia will again take away the acid, and the Morphia will again be precipitated. this can be repeated, as of-
-ten as necessary. The narcotine is seldom if ever used on account of its being found to possess the stimulating, and unpleasant, without any of the anodyne properties.
There are three ways in which Morphia is used, alone but seldom on account of its insolubility, and in combination with Sulphuric, and Acetic acids in the form of Sulphate, and Acetate of Morphia. These are obtained, from the Meconate of Morphia in the solid Opium, by the combi-
-nation of Meconic acid, with Ammonia, Morphia being insoluble is precipitated and is purified by the addition of another acid, and reprecipitated by the Ammonia. The combinations of the Sulphuric, and Acetic

Acids with the base, forms the Sulphate, and Acetate of Morphia, the strength of these preperations is the same, 1 grain of each being equal to 10 of Opium. Dose of Morphia, and its preperations is from gr ½ to gr 1. Opium being soluble, the different fluids which extract its virtues, are all used in practice, the most common of which is the Alcoholic, or Tincture of Opium, which is made, by macerating ℥iv in a pint of Alcohol, the dose of which is from xx to 80 gtts,

The watery solution of Opium is not of sufficient uniform strength, for internal administration, but it forms one of the happiest external applications, we possess for the relief of pain when the surface is too delicate, to admit of the use of Alcohol.

The Vinum Opii, is made by macerating, for fourteen days, ℥ij Opium in 1 pint of Wine, the dose of which is the same as Laudanum but constitutes, a much better preparation.

Its solution in Vinegar, constitutes the Tinct.

Opii Acetatis, or Black Drop, which is prepared by macerating, ℥ij Opium, in xij fluid ounces Vinegar, and half pint Alcohol, Dose of which is from ♏ij to xxv gtts.

It has been thought that it, like the preparations of morphia, is unattended by the unpleasant after consequences of the Opium itself, but I believe without foundation.

There is also another preparation of Opium, the Camp. Tinct. Opii, or Paregoric which is prepared, by macerating, Pulv Opii ʒi, Benzoic Acid ʒi, Camphora ʒij, in two pints Alcohol, for fourteen days, and straining, the dose of which, is from ʒi to ʒij, and is most usually given to children.

Having given a few of the preparations of this most important medicine, and thinking it scarcely necessary, to give every combination of it, we will pass to its therapeutical application, and even then give only those diseases, in which it is most useful not thinking it necessary, to give its application, in all cases of disease,

For by so doing, it might be made almost an endless task.

The application of Opium is very extensive, perhaps more so, than any other Article in the Materia. Medica.,

It is most generally given in two ways. viz in substance, or in the form of Tincture.

When we wish to produce a sudden impression on the system, the tincture should be administered, as in this form it will be immediately diffused, through the stomach and applied, more speedily to an extensive surface of its inner coat, than when given in substance, which requires a considerable time for its solution, and its entire application, to the part upon which it is to act.

In Intermittents, it has been used both in the hot, and cold stages, and its effects, has been highly spoken of in this disease, it has been employed with the warmer stimulants, and sometimes with relaxents, to keep up the discharge

from the surface, and prevent the formation of the cold stage, "Boerhave's Sudorificum Antipyreticum raro fallens," containing gr Opium, and the Compound powder of Ipecacuanha, assisted with Ammonia, is said often to succeed, According to Cullen, in the hot stage, it produces that relaxation of the skin, which hastens and facilitates, the sweating stage, relieving by these means, the headache and delirium, and rendering the fever less liable to return.

Its administration in the cold stage, is spoken of very highly by Dr. Trotter, a full dose of this article, says he, taken an hour, or an hour and a half, before the paroxysm, exhilerates the spirits, the countenance, becomes more calm and cheerful, the surface more relaxed, and the pulse, from being weak and oppressed, becomes full and more natural, given even in the hot stage, it has been observed to allay the thirst, headache, and delirium to

After the surface was prepared the process of the Gale Stage, "Starkey's Improved Underpotens Pump Valve," contained in Opinions, was the Conclusion Pumping of Mercury, contained with Chemicals and the 16 Inches Gas Stage. In the Air Stage, it proved the Best Relinquishing of the Mercury, which Pumping Specialists, the Amazing Stage Delivery of this Pump, the Mercury Delivery, and the Heavy the Pump Left Little to Return.

The Demonstration in the Gale Stage is Pumping of our Lately by Starkey, a Pump Use of this Article, Just to Truth on Pump, is in Pump and a Half, before the Pumping, Exhausts the Effect, the Pump Turned, Become More Gales and Chemical the Surface Pump Relinquish, and the Pump Pump Mark and Chemical, Become Air and More Pumping, Pump Pump in the Air Stage it has Pumper to Long the Mark, Pumped, and Returns to

induce sweat, and sleep, and cure the disease with lep bark, and without leaving any abdominal obstructions, but it appears to me that the stimulating properties of Opium, would not do in this stage of the disease when accompanied, with violent Head=
=ache. delirium &c

The principle indications, which Opium is capable of fulfilling are supporting, the actions of the system, allaying pain, and irritation, relieving spasmodic action, inducing sleep. and checking morbidly increased secretions, being differently admin=
=istered, as it is designed to fulfil one or other of these intentions, When it is given as a stimulant, it should be administered in small, and frequently repeated doses, and slowly increased, as by these means the excitement it produces, is best kept up. But when the design, is to mitigate pain, or irritation, or the symptoms arising from these, it ought to be given in a full dose, and at distant intervals

by which the state of diminished power and sensibility is most completely induced. Another general rule with respect to Opium is that it ought not to be given in any pure inflammatory disease, at least until evacuations have been used, or the inflammatory action has been in some measure subdued.

It is employed with much advantage, when combined with laxatives, in Colic, and often prevents Ileus, and Inflammation, by relieving the spasm, and is used to promote healthy suppuration, and is the principal remedy, in arresting the progress of gangrene, which so often occurs in old persons and spreads itself rapidly to the body.

Dr R. Grattan, in a late report of the Dublin Fever Hospital, speaks in the highest terms of the employment of Opium, in the delirium of Typhus. Where delirium prevails, says he, to a considerable extent, and no sleep has

been procured; after the head has been shaved, the temporal artery opened once or twice, the nape blistered, and a purgative administered, and more particularly should it be near the close of the disease, an anodyne with from xx a xxx gtts. of Laudanum, and as many of the Vinum Opii repeated every third, or fourth hour, until sleep is procured, will be found to produce a marked change for the better. In Typhus where there is a flushed face, severe pain in the head, accompanied with delirium, Opium should never be employed, but where there is a low muttering delirium, without pain in the head & flushed face, Opium combined with Ammonia, will produce the most happy results.

In Active Inflammation, some practitioners are averse to the use of Opium, but others have recourse to it, ~~even~~ in such cases even at an early period, especially after bloodletting, and purging, and when such affections, are attended not only with

pain and spasm, but with watchfulness, and cough, it is often productive of the greatest benefit, and bringing to the wakeful watchfull sufferer, sweet calm repose.
Opium in combination with Calomel, has of late been extensively employed, in almost every form of Active Inflammation, and with the greatest success.
It is found also to be of very great service, in allaying the pain, and preventing the symptomatic fever, liable to be induced by Wounds. Fractures, or similar accidents.
In dysentery after the use of gentle laxatives, or in combination with them, Opium independent of any effect, it may have on the fever is of consequence in allaying the tenesmus, and tormina, and in obviating the laxity of the bowels which so frequently remains after that disease.
In Diarrhœa, the disease, generally carries off any acrimony, that may be a cause. and then Opium is used with great effect. Even in the most symptomatic cases, it seldom

fails to alleviate. It is of acknowledged use in the different species of Tetanus, doses of which, may be given to the amount of from iv a v grs every one, or two hours, until the symptoms abate, and then the dose should be gradually lessened; if it cannot be swallowed, six times that quantity as an enemata, until the patient can swallow. It is justly observed by Dr Chalmers, that the quantity taken, can only be limited, by the violence of the spasms,

Dr James Currie relates a case of Tetanus, and general convulsions, in which the patient first took, one grain of Opium every hour, but being no longer able to swallow pills, the liquid was administered, of which in twenty four hours, he took two and a half ounces, without sleep or alteration. The dose being increased in the next twenty-six hours, he swallowed five and a half ounces, of the Laudanum, a quantity, which at that time, says the doctor, was unparalled. He lay now in a state of torpor,

the rigidity of the spasms was in and much lessened, and the general convulsions nearly gone, but the debility was extreme, a Complete Hemiplegia had supervened, the patients eyes were fixed, and his speech faltering, and unintelligible, it seemed no longer safe, to continue the Laudanum, and the patient was afterwards cured, by the cold bath and other remedies

In Jaundice, Opium in doses of, from grs iv a v, seldom fails, to allay the pain and distress, in a few hours, but in some instances even this quantity is not adequate, to remove the extreme sufferings of the patient, and it becomes necessary to repeat it in smaller doses, until the desired effect is produced.

It is not however simply, as an anodyne, that this Narcotic may be beneficially employed, in painful cases of Jaundice, unconnected with febrile irritation, for where the pain and obstruction to the

The majority of the persons who are most affected, are the general class of mankind, but the certainty with which one complete family has suffered, the patients are three fever, and the fatal termination, are unmistakable. It should be borne in mind, to continue the disease in large hospitals, and the patient, are affected by the cold and the

Remedy

In Homœopathic Opinion is little of fever, pain & delirium, to stop the pain give Belladonna, in a few hours, but if the patient, is not relieved, give this quantity is not adequate to remove the symptoms, after of the patient, and it become overlaying it repeat it in smaller doses, until the chronic effect is increased.

It is not Homœopathy, as an art, that the Homœopathic drug is [illegible] employed. In powerful form of Homœopathic [illegible] with fatal [illegible], for [illegible] the Homœopathic [illegible] to [illegible]

flow of bile, into the intestines is the result of spasm of the duct, we can resort to no remedy, more directly calculated to re=
=move this condition, than Opium when given in effectual doses.

In that species of Mania, brought on by the use of Ardent Spirits, Opium, (to use the expression of Dr Eberle) is the remedium Magnum, the "shut Anchor" of our hopes. The quantity of Opium, which it is usually necessary to administer, before the desired soporific effect is produced, is often times enormous, thirty to forty grains, in divided but frequent doses, are required, before the full advantages can be obtained, which it is capable of affording. My usual practice "observes Dr Eberle" has been to exhibit it, in doses of two grains every hour, after free purgation, until sleep is produced.

In Colica Pictonum, or Painter's Colic, it is said to be a very valuable remedy when administered in large doses, in

Combination with Calomel, it affords more immediate relief than almost any remedy we possess. Dr John Lindsey of Elizabeth-town, has published the result of a very large experience, with this Article, in the present disease. I began "Saps he" by administering large doses of Opium, and generally grs x at a dose, until Dij were taken, I was exceedingly rejoiced "continues the Doctor" to find, that the symptoms began to quiet, and a few common doses, of Oleum Ricini, or the infusion of Senna, would produce the desired effect, Out of forty cases, which occurred in his practice, none except one proved fatal after the adoption of this practice.

In Suppression of Urine induced by a Spasmodic contraction of the urethra and where it is impossible to introduce the Catheter without danger. Opium after free bloodletting, purging, warm bath &c is our most efficient remedy; to allay the Spasm, and induce sleep.

During the paroxysms of Hysteria, opium may often be advantageously administered in combination with Musk. Castor. Asa-fœtida and other Antispasmodics. and is especially indicated, when the patient suffers tormenting pains. when the disease manifests itself chiefly in the Abdominal viscera, or where the convulsions are obstinate, and violent.

It is a melancholy consideration, that this kind assuager of our bodily pains and torments, is used by the miserable suicide, for the purpose of self-destruction. When an overdose of it has been taken, the only effectual mode of relief, is immediately to evacuate the stomach, either by the stomach pump, or by an Emetic. where Opium has been swallowed in substance, Emetics are preferable as the ~~size~~ capacity of the tube is not of sufficient size, to admit of the passage of the masses, in which the poison is sometimes taken.

The operation of the emetic, should be promoted by a free use of warm drinks, irritating the fauces with a feather, and every means should be employed, to produce emesis.

After the evacuation of the poison, the chief indication is to obviate the debility which generally supervenes. For this purpose Ammonia, Wine, Brandy &c may be employed internally, and sinapisms, and stimulants, applied to the surface. If all these means fail, artificial respiration should be resorted to, which has been successful in several instances, and the patients life restored.

Attending the lectures, of our learned and venerable Professor of Practice, during his summer course, he was called to a patient who had taken ℥i Laudanum, and politely requested his class to accompany him to the room in which the patient lay, on entering we found him sitting up in bed. His countenance

The Operation of the Lunatic Asylum is now
under by a Committee of Gentlemen Friends
visiting the Asylum with a Physician and
having Power Place to employ to Pro-
-cure Patients.

Upon the Conversation of the Physician, the
Chief Medicating is to Consult the Detailed
Friends generally Interested, for this Pur-
-pose Thirty days. Thereby he may be
Employed Instantly, and a Thirty days
and Intermediate application to the Employer
If all this means fail, Certificated Pa-
-tients Should be Restored to Friends
Then Thoroughly in General Institution
Case the Patients Fully restored.

Thirdly, the Return of the Insane Can
Generally Employed of Friends, during
the Summer Cause, he Can Call to
a Patient who has Taken an Insane
Case a Detail requests the Chief to
accompany him to the Country in Patient
the Patient Log, in Entering and Going
Home Letting up in Lea. the Conventions

light up with a smile, and to use his own expression "felt happy as a King." The usual means were resorted to, an Emetic was first administered without any effect whatever, the stomach pump, warm drinks, decoctions of green coffee, and every means were tried, which could possibly have any effect but in vain. the patient fell into a deep sleep, and it was impossible to arouse him though whipping was as a last resort used, but in vain the patient sunk, to rise no more.

An
Inaugural Dissertation
On
Fevers
Submitted to
The Examination of the
Provost Regents & Faculty of Physick
of the
University of Maryland
~~As a candidate~~
For the Degree of
Doctor of Medicine
By
William C. Durkin
of the Town of Petersburg & State of Va.
February
1841

fractures. Dupuytren advocates the affir=mative, whilst J. L. Petit and Louis de=ny the possibility of such fractures, but that they do exist and are frequent=ly produced by balls and bullets is beyond the shadow of a doubt. Dislocation=s occur most commonly in long bon=es, from the functions which they perfo=rm, that of levers. The broad or flat bones from their situation and func=tions are not very liable to fracture, with the exception of those of the cran=ium. The short bones are least liable of all, because they are not much with=in the reach of external violence, are capable of greater resistance, and the force applied to them is expended over the numerous joints. The causes of fractures are divided into predispos=ing and remote, and among the first may be mentioned the situation and functions of the bones, age and certai=n diseases. Superficial bones are

more easily broken than those which are protected by large masses of flesh- Some bones are more liable to fractures than others from their functions- as the Radius is more liable to fracture than the Ulna, from its supporting the hand- the Tibia more so than the fibula from its transmitting the weight of the body to the foot- the Clavicle more so than the Scapula from the support which it furnishes the shoulder- Old age predisposes to fractures from the bones becoming more brittle in consequence of the ~~xxxxxx~~ increase of calcareous with a diminution of gelatinous matter- the reverse obtains in infancy- and they can be twisted or bent without breaking- Certain diseases predispose to fracture, as fragility of bones- in which cases the bones consist of an undue proportion of earthy matter- though abounding in an oleaginous fluid- Rickets, in which

there is a deficiency of phosphate of lime in their structure - scrofula - as - thritis - scurvy &c - Fractures are more common in winter than summer - hence some have considered Cold a predisposing cause - but this is not the case, and the opinion originated from the fact, that we are more exposed to falls during cold than warm weather - in consequence of the ground being covered with sleet and ice - The remote causes, are external violence - as falls - blows - and violent muscular action, as exemplified frequently in the Patella - the olecranon process and the os Calcis - it is also contended by some that the long bones can be fractured by the mere action of the muscles - but the question is yet sub-judice. The general symptoms by which fractures can be recognised are pain - swelling - shortening - loss of motion - deformity

crepitus - unnatural mobility - making use at the same time of communicative signs - and exploration with the fingers when the fracture is superficial - It is extremely doubtful whether any one of these signs taken separately can satisfy us of the existence of fracture - as we are frequently deceived in one of the most characteristic - viz Crepitus - as it is occasionally attendant says Sir A. Cooper on dislocations - "arising from a change in the quality of the synovia" - arising, says Liston from the extrication of air into the cellular tissue about the ends of the bone - congelable lymph may also give rise to it; It may be asked what is this crepitus upon which we so much rely? It is a sensation caused by the two fractured surfaces rubbing against each other - it is not only heard - but communicated to the hand - the sound is similar to that produced by rubbing a pin

Fractures are defined to be solutions of continuity in one or more bones induced either by external violence or the action of muscles. They are classified into several varieties. 1st. Simple, when there is mere lesion of a bone without any wound of the integuments communicating with the fracture. The nature and consequences of this variety though fully expressed by its name in the mind, is however not always unattended with danger, as with it there may be conjoined considerable contusions of the external parts, injuries of the profound structures, with lacerations of vessels and consequent effusions and infiltrations, and as a result of these gangrene may be apprehended. 2nd. Compound, when together with the fracture there is a division of the superimposed integuments produced by the protrusion of one or both extremities of the fractured. 3rd. Comminuted, when the bone is

fractured in different places and divid
=ed into several fragments- and they
may be simple or compound comminut
=ed- 4th complicated, when attended
with other accidents as dislocations- or
with diseases as rickets- syphilis- scurvy &c.
Fractures are also distinguished acco
=rding to the direction- into oblique and
transverse- the first is generally the
consequence of force applied in the
direction of the axis of the bone- and
they are the most troublesome to man
=age, as the obliquity renders the surfa
=ces of the injury more extensive- and the
=reby increases the difficulty of retaini
=ng the ends of the bone in apposition-
after the fracture has been adjusted-
The transverse may result from vio
=lence applied to the part- from the acti
=on of the muscles- or from sudden mot
=ion of the upper part of a limb- whilst
the lower is fixed, and at rest- Some Surgeons
contend that there are also Longitudinal

across a rough board. It is however not so characteristic in all cases as unnatural mobility which is peculiar. It is a power of flexion at the seat of fracture. The question may arise upon what Diagnosis should we rely? My answer is that I would confide implicitly in the three following signs. Crepitation, unnatural mobility and deformity of limb. It sometimes happens in consequence of swelling supervening rapidly that it is extremely difficult to diagnosticate between fractures & dislocations. Then we will have to throw ourselves upon our anatomical learning upon our knowledge of the motions which each joint possesses, comparing the symptoms peculiar to each, and by the fact that fractures in most cases are easily reduced and generally require apparatus, but that dislocations in the main are extremely difficult to reduce, in some cases requiring the general but continued exertions of three and four men, and not unfrequently screws

and pulleys, but after reduction is once effected the parts preserve their natural relations, even without the interposition of a splint in many cases.

The prognosis varies according to the kind of bone fractured - in the cranium unfavorable - according to the part fractured - when occurring near a joint unfavorable as likely to terminate in anchylosis - according to the direction of the break of continuity, the oblique being more unfavorable than the transverse - according to the age, occurring in old persons with debilitated constitutions more unfavorable than in young persons with strong vigorous constitutions - and in very advanced age, the cure is always attended with difficulty and sometimes impossible - Transverse fracture of the neck of the thigh bone occurring within the capsular ligament are exceedingly unfavorable - rarely ever uniting by a bony union, of the possibility

of such a union Sir A Cooper entertained
very strong doubts – the prognosis also varied
according to the character of the fractu-
re, the compound being more unfavour-
able than the simple, and the complicat-
ed than the compound.
How is the union between the fractured
bones effected? By one of the most ba-
-tiful processes in nature – the forma-
-tion of callus – a process by which the
original and indeed greater strength is
communicated to the bones after their per-
-fect consolidation – a process which in
many respects bears a striking resembl-
-ance to those changes which is observed
to take place from the commencement
of the embryo state to the completion
of the skeleton. Though Cullen's great
principle the vis medicatrix naturae is
so fully exemplified in this work – yet
it is a moot point among physiolog-
-ists – and one which must skills good
authorities – as advocates for the three

opinions now most prominent as to the manner which nature employs to accomplish the breach of continuity — On the one hand Duhamel contends that callus is formed by the periosteum — this theory is opposed by Haller & Bichlaff who contend that the callus is formed by a gelatinous substance which exudes from the extremity of the fractured bone — Bordenave in turn opposed these two opinions and contends that the bones are united by a process analogous to that which nature employs for the union of the divided soft parts — But as compromises are just and by way of reconciling differences we will adopt neither of the three opinions but hold a middle ground, and adopt that which carries with it the semblance of truth and a show of reason — Viz that of Breschet & Villermé who say that the union of broken bones is not exclusively owing to the effusion of a gelatinous substance from the ends

of the bones not to a secretion from the periosteum becoming ossified - nor to granulations produced from the surfaces of the fracture but it is dependent upon all or several of the circumstances combined - The changes which take place in the reparation of the bones are divided into several periods as follows - In the first day or two there is an effusion of blood from the broken surfaces - 2nd period - the blood is absorbed and there an effusion of gelatinous substance which becomes ossified - extends to the eighth or tenth day - producing swelling - 3rd From the tenth to the twentieth day - there is a diminution of the swelling - lymph absorbed - but a portion of it is more concentrated around the seat of fracture and an internal plug fills up the medullary canal - called callus - 4th from the twentieth to the seventieth day - the callus becomes ossified - clasping

the two fractured extremities together called provisional callus - the fracture is now said to be united - 3rd Between the broken surfaces gelatinous callus is introduced which becomes ossified at the fifth or sixth month - after one year the external callus is absorbed. Sometimes it happens that the fracture remains disunited in consequence of the fragments not being possessed of sufficient vascularity - the bones not being kept in perfect apposition - the limb being subjected to too much motion - the advanced age of the patient - diseases &c - as a consequence of these we will have false joint - the indications to be answered then - are to expose the bone by incision - the ends of which are to be removed either by the saw or other instruments - or the ends to be rubbed over with the escharotics - or to adopt Dr. Physick's remedy - the introduction of a seton through the cavity of the fracture - and the

retaining of it there for a long time for the purpose of stimulating the vessels; of these three plans the latter is generally preferable and has been tried with complete success repeated by our celebrated indical bones and in our instances says Romer upon the lower jaw.

In the treatment of fractures there are three indications 1st. Reduction of the bone 2nd. maintained in the reduced position 3rd. To prevent or resist any unpleasant symptoms which may arise.

The first indication is effected by Extension Counter-extension & Coaptation. The method proposed by Pott for making extension & counter-extension is the one now generally adopted. I E. To apply the extending force to the lower fragment and the counter-extension to the upper. The French surgeons pursue a different plan they apply the extending force to that part of the limb which is articulated with the lower fragment and the

counter-extension to that which is attic
=ulated with the upper constriction is
effected by acting either upon the lower
fragment or directly upon the seat of
fracture itself; when the above treatme
=nt after proper reluxation of the muscu
=les fail to effect the reduction it wi
=ll be in consequence of violent spasmo
=dic action, then we should employ as
auxiliaries General bleeding narcoti
=cs remedies and the hot-baths. The
measures by which the second indicat
=ion is fulfilled are, rest - a convenient
position - bandages - splints and diffe
=rent kinds of apparatus - when the
case is a fracture of the lower extremi
=ties, the patient should be confined
to bed, and lay upon a hair mattres-
=es feather beds by their soft and yiel
=ding character will produce inequal
=ities and thus create deformity - the
position to be preferred is that by which
the muscles are best relaxed, and this

appears to be the semiflexed - as it is the most convenient - the most natural and the one which we involuntarily assume during sleep - Bandages are employed with a double indication to confine the fragments and to prevent engorgement, and for this purpose we use the single headed roller or Scultet's bandages, the latter is preferable to all others particularly in compound fractures, as it is not necessary to lift up and disturb the limb every time it is dressed - or every time the bandage loosens - another advantage it possesses is that when any of the pieces which compose it becomes soiled by the suppuration it is only necessary to tack a clean piece to the one which is about to be removed and then it is drawn under the limb without the least disturbance - Bandages are commonly not sufficient of themselves to prevent motion, then comes in one of the

most important and essential parts of the treatment- viz Splints- these are made of wood- pasteboard- a metal- the number of pieces employed varies according to the place of fracture- generally from two to four, and are fastened with tape or a spinal bandage- sometimes they are adapted to the shape of the limb- splints perform the office of the provisional callus- they must be placed not only around the seat of fracture, but must extend for some distance beyond in both directions- sometimes smaller splints are placed within the larger when there is great tendency to displacement- to prevent their injurious pressure, bags filled with a sufficient quantity of tow- wool or other soft substance must be placed between them and the limb-

Sometimes the Immoveable apparatus is used- consisting of pasteboard

and bandages wet with a paste made of flour and boiling water and applied as in other cases. The advantage it possesses is that it encases the limb completely and thereby enables the patient to walk about in a few days after its application. Before any retentive apparatus is applied we must employ topical remedies to discuss the swelling such as cold water, camphor and spts. Emollient cataplasms, and painting the part with the Tinct: of Iodine. The latter I have seen used very successfully in cases of fracture attended with much effusion. In some cases we are unable to effect union by the ordinary means, particularly in oblique fractures of the thigh, then the employment of permanent extension has been recommended, which implies the operation of a bandage or machine which continually draws

the fragments of the broken bone in con
=trary directions - At the same time that
it restrains them from gliding over ea
=ch other, and maintains them in con
=tact during the whole time necessa
=ry for their union - This practice is
now abandoned in this country and En
=gland comparatively speaking - but
it is still adhered to in France - how
=ever if it should be adopted - the foll
=owing precautions should be observ
=ed - Avoid compression of muscles
over the seat of fracture - The forces
should be divided upon as large sur
=faces as possible, otherwise the soft
parts will be cut through - The pow
=ers should act according to the dir
=ection of the axis of the broken bone -
The permanent extension should be
practised in a slow and gradual
manner - The parts should be defen
=ded by covering them with bags of
cotton - tow - or wool. The apparatus

recommended for permanent extension and those of Desault-Boyer and Hagedorn the latter modified by Physick who substituted a broad foot piece to which both feet are applied and also carried the splint into the axilla- to this Gibson also added a second splint, which is carried to the axilla- none of these however are free from objections and as a substitute, I would recommend Professor Smyth's apparatus- as by its use all the indications are answered- and possesses the advantage of allowing motion of the whole limb without displacement of the fragments- Having now answered the 1st. and 2nd. indications- we have to speak of the 3rd. When inflammatory action threatens we must practice the usual prophylactic treatment- low-diet- cathartics and cold applications to the part- In robust vigorous

constitutional blood letting - In administe=ring cathartics we must use pumps or instruments in bed - and if to be had we may use for this purpose Earles fracture bed - bleeding and purging are to be employed with caution - par=ticularly in compound fractures, as they deprive the patient of the strength necessary for union - and to withstand the subsequent steps = pur=ations - when the bandages stri=ck they must be tightened - when abscesses form they must be opened and covered with cerate - when compli=cated with wounds of arteries apply a ligature - when gangrene the = ens, instant amputation not to wait for the eliminating circle - when complicated with dislocation immediate reduction before the fac=ture, when however articular extre=mities are dislocated it would be impossible to reduce them when

there is a fracture but the in this case we must consolidate the fractu=re as soon as possible, and then re=duce the dislocation but it will be extremely difficult at this late peri=od. Dead portions of bone must be removed when detached and the stre=ngth supported by general diet and wine. Opiates are of great serv=ice in relieving the pains and twi=tchings in the limb. In compound fractures when the prognosis is rather unfavourable a nice questi=on arises and one which requires the exercise of the most mature ju=dgment and deliberation, whether it is better to attempt to save the limb thereby endangering the life of the patient or to amputa=te immediately. now there is no ge=neral rule in these cases but the=re is an approach to one. Whenev=er we find the bones violently

comminuted - as by the passage of heavy bodies - considerable laceration of soft parts - rupture of large vessels and exposure of joints - then operate as soon as reaction has commenced, and not wait for reaction to be fully established, lest inflammatory fever should be lighted up - for then we will interfere under great disadvantages

An

Inaugural Dissertation

on

Syphilis,

Submitted to

the Examination of the

Provost, Regents, and Faculty of Physic,

of the

University of Maryland,

for the

Degree of Doctor of Medicine;

by

Vincent M. Butler

of the County of Jefferson and State of Virginia,

February

1841.

14

It has long been a point of controversy where Syphilis originated. The earliest writers in treating of it do not speak of it, as a new disease, but as one with which they had long been familiar. Hunter considers it a modern disease. Jordan shows that it must have existed from the earliest period of which we have record, for mention is made of it by Galen. Bridles a celebrated Spanish physician, after having resided in South America for some time positively asserted that it was of American origin. It is said by some to have originated as an epidemic in the army of Charles the 8th whilst besieging Naples in the year 1494. As to its American origin, it is said to have been given to Columbus and his followers, by the Indians of this country, but it is more probable that

they gave it to the Indians; for that it was known in Europe before this time is certain beyond controversy. This disease as all others must have had some origin, but as to finding out where it came from first is I think impossible. But I think as Samuel Cooper when he says, "Are we to suppose that the virus never had but a single source, and that the disease first spontaneously broke out only in one unfortunate male or female individual?" And again he says, if the disease did begin spontaneously, that instead of beginning first in America or in Italy, it may have had myriads of sources and existed in every populous country from time immemorial. Like the yellow fever its origin is shifted from one country to another, each being desirous of avoiding the stigma, of its having originated with them. thus one will say that it

14

originated with the French, whilst they will attribute it to the English, until at last the disgrace falls upon America.
The virus of Gonorrhea and Syphilis was at one time considered to be the same, but their different effects were owing, to the difference of surface to which it was applied, in one it was applied to a secreting, and in the other to a nonsecreting surface. The arguments used by Hunter to prove this is; 1st. that the crew of Bougainville who left Rio de la Plata, and did not touch any where until they arrived at Otaheite, after a five months voyage; communicated Syphilis to the natives of the Island. He says that a chancre could not exist on the penis so long without destroying it. Is it not probable that the natives had Syphilis before Bougainville came there? And again cases have been known, in which a chancre did

14

exist this long, with doing any material injury to the penis. Secondly, he says that he produced a chancre by inoculation on the penis with the matter of Gonorrhea. But experiments by Mr. Bell prove that this is not the case. And if it was why would we not always have the two diseases in the same person; for the virus of a chancre is often in contact with the urethra, and the matter of Gonorrhea is sometimes found under the prepuce — Syphilis may be produced by inoculation in any part of the body, also by kissing, and by the nipple of the mother to the child, and vice versa. Dr. Potter mentioned a case, in which a child gave it to a nurse and she afterwards gave it to three other children. But by far the most common way in which it is propogated, is in the act of sexual intercourse. Although the primary form of this disease can be propogated, yet the

14

secondary form does not contain the virus, and cannot therefore be propagated as in the primary form. Hunter says that this disease is found in no other animal except man, but Dr Potter mentioned a case of a dog having a genuine chancre, which was cured with mercury — A chancre is forming some days before it makes its appearance there is at first an itching felt, and when the patient examines a small red pimple is observed, which in a few days suppurates and bursts leaving a small ulcer. These may occur on the glans penis, corona glandis, prepuce, frænum and at the mouth of the urethra. When it occurs at the two last named places, it is by far the most painful and difficult to cure. When on the frænum it is very painful when the penis is in a state of erection, and when at the mouth of the urethra, the urine irritates it whenever it flows, this one is cured by the introduction of the catheter. In the female

they occur on the labia, nymphae, and in some instances though very rarely in the vagina. The chancre described by Hunter is small, with a rough edge, and it extends very slowly, but by far the most characteristic sign is the indurated base. Carmichael also described a chancre, with a rough edge, and extending very rapidly. These ulcers are very much modified by the constitution of the patient. If the ulcer on the penis is not healed up, we will have absorption of the virus, and in from 7 to 15 days a bubo will appear; which is an inflamation of the glands in the groin, and if it is not stopped it will go on to suppuration and ulceration. It has been thought by some writers, that bubaes do not arise as is commonly supposed, from the absorption of the virus, but from the irritation produced by a chancre. But it must be remembered that the virus taken from a bubo is infectious and will produce the disease. Very extensive ulcerations some times

follows a bubo, I saw a case in the Baltimore Infirmary in which the whole groin was excoriated as far back as the anus. But a bubo may arise from cold, and they some times are associated with gonorrhea, in which case they are only sympathetic. he may also mistake a small hernia or aneurism for a bubo. It is very necessary for the surgeon to examine well and also to enquire into the history of the case; as he may some times put the patient on a mercurial course, when there is no need for it. Secondary symptoms. These usually commence on the skin, with copper colored blotches, then we have an ulcer on the soft palate, which resembles very much the primary chancre. It next attacks the bones of the nose and face; and if suffered to run any far then without remedial agents, we have softening of the bad, especially the parietal, and then we have nodes. The first evidence we have of the disease having reached the bones, is an enlargement

14

called a node, which increases very slowly and never becomes very large. In a greater or less time the swelling becomes soft and fluctuating, ulceration takes place and a glaring ill conditioned matter is discharged. The bone is now completely carious, rough and bare. During the secondary symptoms we have more or less constitutional derangement, the fever is generally of a hectic form, and frequently appears to be the cause of death. Venereal warts sometimes appear on the external labia and anus of the female and on the prepuce and glands penis. These may be told from the common wart, by their greater sensibility. We also have venereal opthalmia.

Treatment. In the early days of medical science a syphilitic ulcer was treated in the same manner as any other ulcer, occurring on any other part of the body. But when medicines from the mineral kingdom became known, some of them were looked upon as exerting a specific influence over this disease. Among the mineral substances

chemic was looked upon as exerting a specific influence over it. But it gave way to the more powerful claims of Mercury, which is still considered by most of the Surgeons of this country to be a specific. But the English and some other surgeons think that this disease may be cured without Mercury. And some of them go still further, and say that it causes all the secondary symptoms of which we have spoken. But that this is erroneous is proven by every days observation. If Mercury does produce these symptoms in Syphilis, why does it not give rise to them in other diseases in which we see it given every day. The first person who undertook to cure Syphilis without Mercury was Mr. Thomson of Glascow a surgeon in the British Army. It was introduced into this country from England. Dr. Harris was the first to give it a trial in this country. But the treatment pursued by most of the

14

Profession of this country is, when a chancre has made its appearance, you must commence with the use of Mercury in small quantities, so as to get the system gradually under its influence. You must stop its use as soon as the gums begin to feel sore. And some advise local applications to the chancre, such as the Black wash, which is made by adding Hydrarg. Prots cl. ℥j to Aqua calis ℥vi. Some recommend the caustic to be used. But Dr. Potts objects to these applications on account of their being apt to produce bubo. He recommends to fill the bowl of the ulcer with dry calomel. For internal use the prescription of Dr. W. N. Baker is found to be very efficacious it is.

℞ Hydrarg. Prots cl. ʒi

Pulvis Ipecac.

G. Opii aa ℞ gr.

to be made into twenty pills three times daily. This mode of treatment will usually effect

a cure in two or three weeks.
When a bubo appears it should be treated by general and local bleeding, by means of leeches, and the application of ice after the leech bites have ceased to bleed. But you can generally drive them away when they begin to appear by means of the Camphorated Mercurial Ointment. But if you see that it will suppurate, you may favour this by the application of the common bread and water poultice. Some Surgeons recommend that you let the bubo open itself. others again advise the propriety of opening it, this is done by means of caustic or the knife. the latter plan is the one generally followed in this place. You should make one free incision, then apply poultices, I saw a case in the Baltimore Infirmary which was healed up by means of pledgets of lint frequently applied, they acted I suppose by producing adhesive inflamation—

14

treatment of the secondary form. When you are certain that a person has secondary syphilis, you should immediately put the patient under the full influence of Mercury. You may during this time apply a solution of Nitrate of Silver to the ulcers on the tonsils, gradually increasing its strength. But I think that the stick of caustic is preferable to the solution. But sometimes the disease will not yield to this treatment, then I have seen the happiest effects result from the internal use of Iodine; which may be best given in the form of Lugol's solution which is;

℞

Iodine ℈j

Hydriod. Potas. ℈ii

Aqua pura ℥ vii

commence the use of this in xxx drop doses which must be increased one drop daily. Some have advised the

14

internal use of nitric acid, in ten drop doses, I have seen this kind in one case but without effect.

14

14

An

Inaugural Dissertation

On

Pneumonia

Submitted to the examination

of

The Provost, Regents, and Faculty of Physic

of

The University of Maryland

for

the degree of Doctor of Medicine

by

Julius Hall

Ann Arundel Cy. Md.

February. 1841.

14

To.

Dr. A. C. Robinson attending Physician to the Balt. Alms House, this thesis is respectfully inscribed by his youthful admirer, and obliged friend.

Pneumonia.

The term Pneumonia has been employed by Authors to designate every acute inflammatory action, occurring within the cavity of the Thorax, whether of the pleura, the bronchial tubes, or the proper substance of the lung itself; being known by the various synonymes of Empyema Pneumonitis, Peripneumonia, Pneumonia-Peripneumonia, Pneumonitis, Pulmonia and several others. Modern writers however, as its derivation (πνευμων) would indicate, confine it to an inflammation of the proper Parenchyma of the lungs; and indeed "Says Stokes, the ~~who~~ would call it a Bronchitis of the terminal tubes would hardly be guilty of a misnomer."

Symptoms. The patient, for several days previous to the full development of the disease, feels listless, dull, indisposed to exertion either mental or corporeal. In some instances head-ache accompanies the precursory symptoms, so violent in its character as almost to forbid motion - and continues until the disease is ushered in, like most inflammations, with a chill as distinct, as an

intermittent paroxysm. With the reaction we have superveening the characteristic symptoms of the disease; a feeling of stricture as if a cord were drawn tightly across the chest; frequent and laborious respiration; a dull - deep - seated pain; with a pulse "sluggish, struggling and oppressed", and in the advanced stages "weak, soft and irregular." The cough is frequent, hard and "harsh, attended with a thick, glairy, bloody, brick-dust coloured sputa, so viscid that even upon inverting the vessel containing it, it adheres firmly to its surface. These symptoms have been laid down as enabling physicians infallibly to designate this disease; but the uncertainty of the pulse as a diagnostic in any disease is so fully admitted, that he who, like the Chinese Physicians, would attempt, with a partition between himself and his patient, relying upon the pulse alone, to pronounce upon the character of a disease, would render himself truly ridiculous. The cough too, Dr. Williams pronounces a very uncertain symptom; "being often very slight in the worst cases, and as may be supposed, depends rather

on the attendant Bronchitis than on the parenchymatous inflammation itself: In regard to the expectoration which has been considered by all physicians, as pathognomonic of this disease, Dr Graves enjoins it upon us, as a point to be particularly remembered, that "there may be cases of Pneumonia without any expectoration from the commencement of the disease, to the period of complete resolution;" and even when it does occur Dr Williams questions its right to so distinguished an epithet as pathognomonic, and says, that he has seen it "in cases of Bronchitis supervening on organic diseases of the heart causing great pulmonary congestion, and also on pulmonary Apoplexy." These symptoms then being seldom fully developed, and in some instances entirely absent, causes great difficulty in distinguishing from other thoracic diseases Pneumonia proper. This fact being felt and acknowledged by the profession, led some among them to seek for agents through which, they might judge by hearing, if not by the sight, of the pathological changes taking place. To Laennec the profession

is indebted for the discovery of the Stethoscope, who in 1816, upon listening to the action of the heart through a paper cylinder, received a hint upon which he improved, and finally gave to the world the result of his experiments, which renderes the diagnosis of Thoracic disease by signs "certain, simple, and prominent, as decisive and circumstantial, as the indications furnished to the Surgeon by the introduction of the finger or sound, in the complaints wherein these are used." Diagnosis is now considered by the profession at large, as being greatly facilitated by these Physical signs; which indicate as exactly as can be known the extent and character of the inflammation. The 1st stage, the stage of engorgement or congestion is indicated by the small crepitation of Laennec; the Crepitant Rhonchus of Williams, a fine crackling sound heard upon applying the ear to the Stethoscope, "like that heard when kitchen salt is thrown upon a hot iron, or like that caused by rubbing between the finger and thumb a lock of hair near one's ear." M. Andral considered it as produced by effusion of serum into the minute air-tubes and cells,

and the passage of minute bubbles of air through this serum, the character of the crepitation depending "on the smallness of the bubbles in the extreme tubes." Dr. Williams however considers this crepitant Rhonchus to be produced by the condition of the extreme air-tubes and cells, "narrowed and obstructed as they are, by the enlarged vessels distributed between and around them." And he continues, "as the smallest tubes are narrower than the cells in which they terminate, may not the obstruction become such in them, that the air can force itself through the viscid mucus which lines them only in successive minute bubbles, the crackling of which constitutes the crepitation in question." We have also an indication from percussion; "owing to the increased matter of the congested lung, percussion over the diseased lung, gives a sound slightly duller than over the opposite side."

The 2d stage or hepatization is indicated by complete dullness on percussion, and by the cessation of crepitation; the sound of the voice and air being heard only in the larger tubes, known as bronchial respiration and Bronchophony; the deposition of lymph

which causes Aspiratization preventing the entrance of air into the minute tubes and cells. This sign Bronchophony resembles somewhat Pectoriloquy heard in Phthisis, where a cavity exists; but it is to be distinguished from it, "by extending over a considerable surface, and also by being greatly diminished by the use of the Stethoscope with the stopper in it, which is not the case in Pectoriloquy."

In the 3d Stage, the stage of Suppuration or Purulent Infiltration, when the infiltration of pus-like matter begins to take place, we hear the Mucous râle of Laennec, Mucous Rhonchus of Williams to a greater or less degree; but there is truly no distinct physical sign of this stage, on which we can rely, and we are therefore rather to infer its supervention by the functional symptoms. The previously existing inflammatory fever gives way, "to great prostration, rigors, cold-sweats, a weak thready pulse, whilst the breathing is as short as ever, and the countenance exhibits the pallid, waxy, anxious, drawn, tremulous features of ebbing vitality."

Dr. Stokes suggests the existence of a stage antecedent to the stage of Congestion, before crepitation begins;

characterized by the condition of "the lung being drier than natural, with intense arterial injection. No effusion of blood into the cells." The physical sign of this stage he considers "an intense puerility of respiration in the affected part." Dr Williams in remarking upon this idea doubts the propriety of calling that another stage, which is probably "a smaller degree of the first stage, and which afterwards causes crepitation - the partial narrowing of the air tubes."

There is one other symptom of considerable importance; the ease or difficulty with which the chest may be expanded. The motion on the unaffected being free, and much more extensive than on the diseased side, "existing exactly in proportion to the impossibility of air entering the affected side."

Diagnosis. Two diseases Bronchitis and Pleuritis are liable from having the same order of symptoms to be confounded with Pneumonia; if however we attend to the difference in character of these symptoms, we will most probably be enabled to diagnose correctly. Pain in Bronchitis, if it exist at all, is but slight. The cough is loose and stridulous, attended with a

transparent, liquid, but glutinous sputa, which when the inflammation has been somewhat relieved, becomes opaque and clotted; and "although still viscid, the masses do not coalesce into a glairy mass." The pulse is generally soft and easily compressed, in comparison with the pulse either in Pneumonia or Pleuritis. Percussion affords but little information upon applying the ear to the stethoscope however, instead of hearing the natural respiratory murmur, we hear a sound "like the singing or chirping of birds"; or says Laennec, "like the prolonged scrape of the bow on a large violoncello string, which is caused by the swollen and dry state of the mucous membrane. When secretion comes on, we hear the "mucous râle, produced by the passage of air through the thick mucus in the bronchial tubes."

Pleuritis is to be distinguished from Pneumonia, by a full, hard, frequent and resisting pulse; the acute lancinating character of the pain, increased by an attempt at a full inspiration, producing that severe suffering which the patients themselves term a stitch in the side. The cough is frequent, dry, harsh, and short; in most instances smothered

to prevent the increased suffering caused by it. Expectoration is generally absent, if there be any, it is but a transparent frothy mucus- Neither Percussion nor Auscultation gives us any indication of inflammation of the Pleura, unless effusion takes place; we then hear Aegophony, a sound resembling the bleating of a goat; which is produced by the passage of the voice, through a thin layer of liquid, "which being thrown into Active vibrations by it, trembles and dances in an irregular manner, now checking the ~~[illegible]~~ sound, now transmitting it with increased force, so that the voice comes through tremulous and thin".

Prognosis. In regard to this we should be particularly guarded, for when most we flatter ourselves and our patients, with the hope of a speedy recovery, a train of Symptoms unexpected, may supervene and suddenly carry them off. Of sixteen Cases of Pneumonia treated in the Balt: Alms House during the year, eight recovered and eight died; the majority of those who died however were brought from the City, after having laboured under the disease for several days without medical treatment; and some

of them exposed to the vicissitudes of the weather, in a cold, damp, unventilated hovel, without even the simplest nourishment. In several of these cases Post-mortem examinations revealed the lung passed from the stage of congestion into gangrene. When we find under treatment a return of the now harsh and dry skin, to a soft and perspirable condition; relief of the constrained and difficult respiration; with a gradual return of the natural respiratory murmur as heard through the stethoscope, then and not until then, may we safely promise the patient's restoration.

Pathology — The morbid changes revealed to us by Post-mortem examinations, are first the stage of congestion or engorgement, in which the lung is of a violet or livid hue; heavier and much more solid than natural, still however crepitous, though much less so than in a natural state.

In the 2d stage, the lung has entirely lost its crepitous feel under the finger, and resembles in appearance and consistence liver — from which circumstance it derives its name Hepatization. When cut into, the lung exhibits a mottled appearance varying from a violet-gray, to a blood-red. This is attended with an

entire obliteration of the cellular structure, presenting a granular aspect dependent upon the conversion of the air cells "into solid grains" says Laennec, "by the thickening of their parietes, and the obliteration of their cavities by a concrete fluid." Andral was also of this opinion who considered Pneumonia "as consisting essentially in inflammation of the air-cells, the internal surface of which secretes at first a muco-sanguineous, and then a purulent fluid." Dr. Williams from many minute examinations of the granulations of hepatized lungs, was led to regard them "as vesicles with their coats distended by an interstitial deposit of lymph, and perhaps containing the same matter in their interior." In which opinion Andral has since concurred.

The 3d stage or stage of suppuration consists in the conversion of the semi-solid particles of lymph or blood, which constitutes "the solid of red-hepatization into an opaque, light-yellowish, straw-coloured friable matter, and finally into a fluid pus." The pus is generally diffused in the form of purulent infiltration, seldom existing in the form of a distinct abscess; "the very

porous structure of the lung rendering the circumscription of the matter by the effusion of lymph, such as takes place in general, an unlikely result."
Gangrene is also a termination of Pneumonic inflammation, a very rare one however, and arises from the influence of agents, "which directly destroy the vitality of the tissue." Post mortem examinations in such cases reveal the lungs "reduced in parts to a dark brown, greenish, or livid softening; having a fetid odour, and being probably the result of the poisonous influence of noxious gases on a congested lung."
Treatment. From the acute inflammatory character of this disease, antiphlogistic remedies are evidently particularly indicated; and at the head of these the Lancet, which may be used almost as liberally, so true is it that after bleeding once and again to syncope, reaction comes on, the pulse rises to its former frequency and fulness, and we are compelled to bleed even a third time; even then when we fear to carry the remedy further lest dangerous prostration be induced, we find nature relieving herself in many instances by Epistaxis. Dr Graves remarks, that he has found a repetition of blood-letting necessary in but two cases;

and this was complicated with Hypertrophy of the heart. He prefers and considers as the "principal remedy" local depletion by leeches; which, he says, "in all inflammatory affections of the chest, are indicated in proportion to the pain and tenderness complained of by the patient." This doctrine of local depletion would appear to be in opposition to the experience and recommendations of authors generally; who consider leeches as indicated only after the acute stage has been at least partially reduced; the pain and difficult respiration remaining. Venesection can no longer be practised.

Calomel with Expectorants and Diaphoretics has been very much used; the compound Nitrous powder, ℞ Calomel gr j. Nit. Potass. grs x. Tart. ant. gr ½. has been more extensively prescribed in this disease, than any other remedy; and exciting as it does the power of Antimony, though to a limited extent, in many instances has relieved the disease. Dr. Stokes lays down a rule which would forbid the administration of Calomel in the congestive stage of the disease, viz "that the greater the intensity of a disease, the less is the chance of salivation". and when occurring it

appears to be rather "the result of the same influence which produces the relief of inflammation, and not the cause of that relief." The direct anti-phlogistic power of Calomel is certainly inferior to that of Antimony; when therefore Calomel is used in the first stage of the disease, it should either be preceded by or combined with Tart. Antim. In the stage of effusion, however, Calomel is particularly adapted; by modifying, according to Williams, the action of the extreme vessels, and promoting the absorption of effused lymph, over which blood-letting has no power, being applicable to the removal of congestion, and the reduction of the quantity of the blood to the capacity of the respiratory organs.

Blisters are very valuable auxiliaries after the reduction of arterial excitement, assisting very powerfully to restore the healthy condition of the Pulmonary vessels.

Next to blood-letting in the treatment of Pneumonia must be placed Antimony. This article of the materia medica was first used by the Italian physician, Rasori, and afterwards by his followers, who administered it in the enormous doses of from a scruple

to a drachm in twenty-four hours. Laennec adopted the Italian practice in France, giving however much smaller doses, one grain at a dose, repeated for six times; he then omitted the medicine in such cases, but in seven cases continued it until a decided amendment took place. M. Louis has experimented on the comparative efficacy of Antimony and blood-letting; and came to the conclusions that "blood-letting never arrests Pneumonia in its progress;" and "the physical signs crepitation &c for the most part continue to be developed not the less for this evacuation." He places greater reliance on Antimony, and says, "that the Tartrate of Antimony in large doses, given in those cases, when bleeding has been unsuccessful has a favourable action, and seems to diminish the mortality of the disease." These results differing so widely from the experience of the profession, are derived from an insufficient number of cases to warrant implicit confidence. For it is certainly true, that Antimony after depletion given in free doses grj. On. 2dis hora, during the twenty-four, will relieve with comparative certainty Pneumonic inflammation; and this effect in the opinion

of Dr Williams, is to be attributed neither to its nauseating, emetic, purgative or diaphoretic effects; but to its antiphlogistic power, and we can only conjecture that it is so by a specific action on the inflamed tissues.

An objection has been urged to the use of Antimony, viz, its producing inflammation and ulceration of the stomach and bowels. Dr. N.C. Robinson in his report of cases treated in the Balt. Alms House Hosp.l p. 14. refers to this circumstance; and gives his own opinion, that it rarely occurs, unless administered in an improper vehicle.

"We have never," says the Dr. "witnessed this effect upon the mucous coat, although we have repeatedly administered large sedative doses of Tart Antim in cases of Pneumonia, with a single exception, in which distinct Tartar Emetic pustules were seen studding the fauces. In that instance the medicine having been administered in a thick mucilage of gum-acacia, particles of the undissolved antimony had adhered to the surface of the membrane about the throat."